#2

This notebook of L.Macmillan contains:
Introduction giving abbreviations, signs ,etc. used by McMillan not only in this book,but also in log of New Caledonian specimens,etc.

Notes on ~~all~~ some of the specimens of birds(including alcoholic material) collected by McMillan on Tanna and Aniwa Island. Genera arranged in alphabetical order.

A B C D E F G H I K L M Mc N O P Q R S T V W Y Z

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EXPLANATION OF TERMS, SIGNS, ECT. IN

The System Used in This Routeen Book.

Taking the Heading.

Family name is given & whether it breeds or not.

Native names for areas where known are then given. In the opening page head are given a general description of soft parts of the birds (iris. bill. legs & fat.) As a further check on myself when comming to a new area I redescribe the birds soft parts without looking at the old ones in this way am more likely to note any variations between areas. If no mention is made it means my re description tallyed exactly with the area in which I first examined the bird, sometimes I find I redescribe it differently but really very similarly in which case I put it in again meaning there may be an infintesimal variation. Any peculiarity in an individual bird or spirit specimin or young bird is mentioned in the Remarks colum.

The first left hand colum has the refence number so that if you want to refer back to any bird or it's measurement or question anything about it you merely give its family name & reference number e.g. Zosterops flavifrons R 345. & it can easily be traced through all my books. In this way birds not kept can be fully traced. In the case of what looks like an error & a run through the field book will show if I transfered it correctly. In the case of a skin being made of the specimen it is shown thus SK141. being the number of the tag in birds collected by me for you. If the specimen is put in spirit it is shown thus SP123 this being the number of the small metal tag attached to the specimens leg. Note These numbers start in the 100's as up to that appear in Harrisons books for the North & New Hebrides. This colum is headed SK & ROUT. No.

The second colum is the sex of the bird ♂ male: ♀ female: U.S. unsexed either because sex uncertain in which case there will be a note in the Remarks colum about it, or because it was put direct into spirit without examination. This colum is headed SEX.

The third colum headed SHOOTING DATA gives the date shot approximate time of shooting condition of weather prevailing, approx. height of bird, short description of type of country where shot which for fuller description will be found in the area notes. (the area number given is in my field book but not area of description is given thus (area 1) but this is for my use in plotting areas worked to show I have missed no corners of that area as each shot is approximately plotted & blank areas done over before leaving) Then the sub area such as Tanakahi is given if you want to look up the district & the approximate height above sea level is given thus 2000 A.S.L. or $\frac{2000}{A.S.L.}$ & the island where shot.

The fourth colum headed GON. is the condition of the birds gonads on the following system. for males ♂. ♂ is a nestling ♂+, $\frac{0}{4}$-, $\frac{1}{4}$, $\frac{1}{4}$+, $\frac{1}{2}$- to $\frac{1}{2}$ gives about normal enlargement, $\frac{1}{2}$+, $\frac{3}{4}$-, $\frac{3}{4}$, $\frac{3}{4}$+, $\frac{1}{1}$-, $\frac{1}{1}$ full breeding $\frac{1}{1}$+ is very large $\frac{1}{1}$++ is an abnormally large gonad for size of bird & shows absolute extra full breeding.

If this fraction has the sign >0< it means a further remark is found in the remarks colum or measurements are given.

~~for females ♀ :- ♂ nestling & very very small ovaries.~~

~~If~~ This fraction may be accompanied by the following letters which mean. U.T. testis are unevenly enlarged } Fuller data will be found in remarks colum.
O.T. testis or one testi ~~enlarged~~ atrophied.

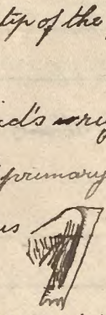
For females ♀. :- ♂ nestling or very very small ~~testes~~ ovaries ♂+, $\frac{1}{4}$-, $\frac{1}{4}$, $\frac{1}{4}$+, is about normal, $\frac{1}{2}$-, $\frac{1}{2}$, $\frac{1}{2}$+, $\frac{3}{4}$-, $\frac{3}{4}$, $\frac{3}{4}$+, $\frac{1}{1}$-, $\frac{1}{1}$ its full breeding $\frac{1}{1}$+ is a very large ~~oocyte~~ or very large oocyte in oviduct, $\frac{1}{1}$++ means an egg in oviduct, $\frac{1}{1}$+++ mean an egg ready for laying. >0< accompanying this fraction means see remarks colum.

These fractions may be accompanied by O.S.F. oviduct slightly enlarged.
O.E. oviduct enlarged.
O.M.E. oviduct much enlarged
O.V.E. oviduct very much enlarged.

NB I found data was lost when an enlarged oviduct was marked $\frac{1}{1}$ without question as I noticed a great variation in the ovaries of such birds, so mark the enlarged oviduct & the condition of ovaries seperately but in compiling a breeding sheet allowance must be make for ~~the above~~ they.

ALL MEASUREMENTS ARE IN MILLIMETERS.

The fifth colum headed TOTAL. is the length from the tip of the bird's bill held to the upright end of a ruler down the right side to the tip of the furthest protuding tail feather.

The sixth colum. headed W. is the length of the bird's right wing unless damaged from the wrist joint to tip of longest primary feather, laid along the rule so the outer curve of the wrist is on 0. thus 

The seventh colum headed TAIL or TL. is the length of the birds tail from the base of the 2 central feathers to the tip of the longest protuding feather, in a markedly forked tail inner & outer is given & if varied R stands for right fork L for left fork.

The seventh colum headed BILL has the following measurements.

G: is the rule placed in the gape without distension to the tip of the upper mandible in a straight line.

C: is the exposed culmen measured by dividers.

CONT.

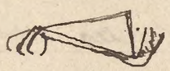
BILL col. 7 continued :- R.NTT. is from the back of the nostril to the tip of the bill, upper Mandible. measured by dividers

D@B or DB@B. is depth of bill with closed mandibles at the base from the begining of the exposed culmen straigh down, measured by dividers.

L.D. is least depth of closed bill measured by dividers at shallowest point.

W@B or WB@B. is width of bill at base base being taken at point where upper + lower mandible feather line approach + meet, measured with dividers.

DIFF B.M. is difference in length between mandible or visable overhang.

The eight colum head TR. is the length of tarsus measured by dividers with point in joint to inner bent back knuckle joint  always on birds right leg unless damaged.

In this colum MTC. means length of middle toe + claw from joint to tip with dividers.

The ninth colum headed MOULT. is the moult of the bird done by the following system.

WINGS. The bird is laid on the table on its back with the head towards the examiner + tail pointing away + the birds right wing which is also on the examiners right is examined along the inner side of the primaries + if it has a spear wing feather in moult that is recorded ↑ then primaries are counted from the outer inwards + counted numbers in moult being recorded, then the birds left wing is examined + treated similiary then the cover feathers under + along the arm are examined on both wings + then on the outer sideds of both wings are examined + if they show moult are recorded covs o or what ever degree of moult is present. if the under + upper or outer vary in degrees this is shown, or if only one lot are moulting it is shown by upper covs o under covs M or up covs. or un. covs. + the degree, or just one or other by itself. Then secondaries are examined + if any moulting their degree is shown. seconds or sec. M being much. This completes the wing which shows in some such manner.

W: R. 1, 3-5, 7. L. 1, 3-5, 8 covs, seconds o. would read.

Right wing primaries, 1, 3 to 5, + 7 are moulting, Left wing primaries 1, 3 to 5 + 8 are moulting counting from outer primary. coverts + seconds have odd one moulting If a small F appears alongside a number 8^F thus it means moult just or almost complete

TAIL Now the bird is turned over on its front + the tail primaries (+ secondaries if present) examined under the coverts by raising them. The starting from the central R hand feather of the bird, (which is now on the examiners left) the feathers are counted to the outer one starting 1 at the inner feather + recording it R. + any feathers moulting. then the L left hand side is

CONT.

similiarly treated starting again at the inner + working out + recording it L + any feathers moulting (If it has secondaries or long covers these are noted + recorded + their degree by sec. o.)

Then upper + under tail covs are examined + recorded covs. + degree if only one is moulting or if their degrees are different they are recorded separatly by up. or un. covs. + their degrees of moult. Thus a completed tail may read. TL: R 1, 3, L. 1 covs o. means.

On the birds right half of the tail the innermost feather + the next but one to it working outwards are in moult, + on the left side only the innermost feather is moulting. odd tail coverts are moulting. An F alongside a figure denotes moult almost or just completed.

BODY. The examiner now runs up the back of the bird as it lies before him recording moult of parts as he goes. making divisions of rump, back, nape + crown. looks at the cheeks + turns the bird over + starting at the tail again runs over it to the head, along the flanks in passing + records the moult in sections of vent, belly, flanks, breast neck + chin. Thus a completed body may read {rump, back M. crown o / vent flanks, much chin o} which would read "On the body odd feathers are moulting on the crown, vent, flanks neck + chin + many are moulting on rump + back." for

Degrees of Moult TABLES + signs. N or NIL no moult on body or part.

always underlined letter or word to show degree.

- O. (few scattered) means a very few odd ones are moulting but no definate moult.
- O (few)
- O. means odd ones are moulting
- E. may be used as a sub degree here.
- C. means a good deal of moult is taking place in the areas indicated
- ~~may be used as a sub degree~~.
- M. means a large amount of moult in taking place in area indicated.
- A. means a full moult + all or almost all feathers are moulting in area stated.

~~A area not mentioned means no moult there or if mentioned thus~~

~~N~~ ~~much~~ all unders o + chin. means "all unders odd except chin which has none".

The ~~tenth~~ colum headed ABR. is the amount of abrasion in wings + tail.

the sign W/T means abrasion is the same in both + amount is indicated by degree letter.

W:
T: means a difference which is shown by the degree letter with each.

Exceptional body ~~moult~~ or colour abrasion is recorded in remarks + indicated by the usual ↝ sign.

DEGREES of ABRASION.

used principally in wing + tail differences to show difference where present + the order of abrasion.

- N no abrasion.
- V.V.S. very very slight: almost infinitesimal but starting definatly to wear.
- V.S. very slight: in further stage of above.
- S. slight abrasion: abrasion setting in ~~to~~ a definate degree.
- F: fair abrasion. ~~no~~
- C: considerable:
- M. much.
- V.M. very much.
- V.V.M. very very much.

mixed ↝ means see remarks as there is a varied or uneven abrasion.

CONT.

C D E F G H I K L M Mc N O P Q R S T V W Y Z

The eleventh colum headed stomach. Gives the stomach contents + the degree of fullness. 0 being empty, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{1}$ full. neck crop may be mentioned here also. In birds with a long large gullet (such as petrels) + only a small stomach the degree of each + its contents is given. STM. indicating stomach + L.C. long crop. or CR. crop.

Twelvth colum or right hand ~~page~~ gives ~~one~~ over flow or fuller detailed data from the other columns + any interesting notes or variations noted + a place for jotting any comparisons.

General Signs used.

⊗ shot damaged.

? question.

>o> see remarks colum.

\+ measurement should be greater as longest feather damaged.

SUB. AD. or JUV. sub adult or juvenile

POSS. possably.

PROB. probably.

X. except. or leaving out

Numbers. 1, 2, 3 4. 5, 6, 7, 8, 9, 10. Note 7 has a cross bar to avoid confusion with 1. + 9. when written hurriedly.

E F G H I K L M Mc N O P Q R S T V W Y Z

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37 Acridotheris tristis (Linnaeus) (breeds) introduced — page 1.
5 Anas superciliosa pelewensis (Hartl + Finsch) (breeds) — page 5.
8 Anous minutus (Boié). not to my knowledge but possible. (non breeding) — page 9 poss unrecorded.
17 Anous stolidus (Linne) (non breeding) — page 13.

13 Arenaria interpres oahuensis (Mathews) (non breeding) — page 17.

26 Bacomantis pyrrhophamus schistacigularis (Sharpe) (breeds.) — page 41.
7 Chalcites lucidus layardi. (breeds) parisites ? — page 45
23 Chalcophaps indica sandwichensis (breeds) (Ramsey). — page 49.

Circus approximans wolfi (Gurney) + an unknown ? varient ? (both breed). — page 53.

Collocalia esculenta uropygialis (Gray) (breds.) — page 65

Columba vitiensis leopoldi (Tristram) (breeds) — page 69.

21 Ducula pacifica tarrali (Bonap). (breeds) — page 77.
41 Erythrura trichroa cyreifrons (Layard) (breeds). — page 85.

7 Falco peregrinus ernesti (Sharpe) + a ? varient (both breed). — page 93.
Fregata ariel. (Gray) ? (non breeding to my knowledge) — page 97
3 Fregatta albigularis (Finsch) (breeds) — page 101.
50 Halcyon chloris juliae (Reine) + tannensis (sharpe) (both breed) — page 113-15

31 Hirundo tahitica ~~suffusca~~ (Gould). (breeds.) — page 121.
8 Hypotaenidia philippensis swindellsi (Mathews) (breds) — page 125.
32 Lalage leucopygia (breeds.) — page 129.

11 Limosa lapponica baueri + large varient ? (non breeding) — page 122.
24 Macropygia rufa rufa + grey phase ? (Ramsay.) (breeds 2.) — pages 141+5.

35 Myagra caledonica melanura (Gray) (breds) — page 157.
38 Myzomela cardinalis cardinalis (Gmelin) (breeds) — page 163.

10 ~~Petroica~~ Numenius phaepus (Linné) (non breeding) — page 175
pos. unrecorded except by Harrison + self 1935.
34 ⊙ Petroica multicolor similis (Gray) (breeds). — page 181.

9 Pluvialis dominicus fulvus. (Gmelin) (non breeding) — page 189.

20 Ptilinopus tannensis. (Latham) (breeds) — page 199.
19 Ptilopus greyi (Bonap). (breeds) — page 203.
1 Puffinus lherminieri nugax. (Mathews) (breeds) ? — page 207.
2 Puffinus ? pacificus (breeds.) ? — page 211
36 Rhipidura flabellifera brenchleyi (Sharpe) breeds — page 215.
16 Sterna anaetheta (scopoli) (non breeding to my knowledge) pos. unrecorded. — page 223
15 Sterna bergi ? (cristata ?) (occasional breeder.) — page 219.
14 Sterna sumatrana (malkewensis ?) poss unrecorded. (breeds) — page 221.
25 Trichoglossus ornatus massena (Bonap). (breeds.) — page 227.
12 Tringa brevipes (Vieillot). (non breeding) — page 229.

33 Turdus poliocephalus (albifrons ?) (Ramsay) (breeds) — page 231.
8 Tyto alba lulu (Peale). (breeds) — page 237.
⊙ Zosterops flavifrons (majuscula ?) Mathews Murphy (breeds) — page 241
⊙ Zosterops lavalis (ernsti ?) poss new (Murphy) (breeds) — page 250.

NESTS

1

ACRIDOTHERES TRISTIS (LINNAEUS)

(INTRODUCED)

SOUTHERN. NEW HEBRIDES

East Tanna dialect (AREA 1) KOAL
Eraka + Eastern foothills (AREA 3). KOAL

1935

SK. & ROUT. No.	SEX	SHOOTING DATA.	GON.	TOTAL	W.	TL.	BILL	TR.	MOULT	ABR.	STOMACH
SK15 R.29.	♀	9/10/35. 3.PM. sunny showers. Shot in coconut palm 30ft. in open grass land paddock, near sea. 120 A.S.L. Jarki, White Sands. E. Tanna (A.1)	1/2 –	225	140	84.	G. 31. C. 19.	38	NIL	W: V.V.S. T: F	1/1 white ants, beetles, spider, fruit seeds
R.49.	♀	14/10/35. 2.P.M. fine sunny. Shot in coconut palm 30ft. open grass and paddock, near sea. 150 A.S.L. Jarki. White Sands E. Tanna (A1)	0/0 +	250	136	78	G: 30 C: 19	40.	back, nape. 0. chin 0.	W/T. V.V.S.	1/1 fruit beetels.
SK46 R.93	♂	2/11/35. 5.30 P.M. fine sunny. in fig tree. 20ft. open grass land paddock. 150 A.S.L. Jarki. White Sands, E. Tanna (A1)	1/2 +	270	144	90	G: 33 C: 20	41	NIL.	W: N. T: S.	0/0 fruit seed residue.

SOFT PARTS.

AREA 1. IRIS dark slate grey with silver flecks, bare patch yellow skin behind eye.
BILL bright yellow, black streak near base lower mandible.
LEGS & FEET bright yellow.

Remarks

Specimen page. V.V.C. very very common. C common. R. rare. } I find ordinary census counts so variable + give such inexplicable average results which don't convey the true state that I have formed the system for Tanna: its active breeds.

ACRIDOTHERES TRISTIS (Linneus.)

Data to date.

AREAS.	PRESENT.		
East Tanna	White Sands area	V.V.C. especially in garden lands, grasslands, semi bush.	Breeds
	West Sewi area.	V.V.C.	Breeds.
	Eastern foothills.	C. mostly around villages varies in numbers.	Breeds.
	Ianakaki area.	R. except along Sulpur bay valley a few appear..	?

FOOD Insectivorous + fruit eater.

NESTING HABITS Non colonial nester but often nest close together, occasionally 2 females to a nest.

NEST: Nest in a hollow limb, amongst banyan roots in a rock cavity, in houses.

DESC. NEST. Nest, fibrous grass ect lined roughly with feathers.

CLUCH. Eggs. 2, 3, 4. odd times more, pale blue.

INCUBATION Incubation about 12 days I think.

Notes. This bird was introduced ~~by from~~ accidentally from a wreck on the Wcoast in the early 90's. fourty years ago. The Fiji Kanaka recruiting vessel named the Fiji was wrecked there on the Fiji rock off Lenakel + a pair of bird on board flew ashore, Being very tame they lived at a traders house + began breeding. They could easily have been wiped out but were left + have since spread over the island. Ten years ago the first few appeared on the E. side of the island but today they are very numerous + do much damage to bananas + soft fruits. They have a bad effect on indigenious birds which is only apparent in the Lenakel area as yet but in time will effect the whole island. They destroy a lot of insects ect but doubt the good they do equals their harmful effect on indigenous birds.

NESTS 5

ANAS SUPERCILIOSA PELEWENSIS

SOUTHERN. NEW HEBRIDES

NATIVE NAMES.
East Tanna (AREA 1) } ERAYING.
West Sewi (AREA 2)
Eastern foothills (AREA 3) } ERAI

1935

Sk & Rout No.	Sex	Shooting Data.	Gon.	Total	W	T	Bill	Tr.	Moult	Abr.	Stomach
R71.	♀	19/10/35. 5 AM on bank of river flowing into Sewi lake, 300 yds from lake on S.W. side. 120 ASL. W. Sewi (AREA 2). East Tanna. New Hebrides	3/4 +	504	237	85	G. 57 C 46	43	TL: R. 1, 4F, 8F; L. 4, 9F covs O. all uppers O.	W/T N.	½ volcanic sand with lava of dragon fly.
R140.	♀	13/11/35. 4 PM. fine sunny day. Shot on Esaka river. 400 ASL (AREA 3) in foothills at foot of 3000 ft hills. Eastern foothills area. E. Tanna. New Heb.	3/4	508	236	85	G. 63 C 48	44.	TL: R. 6, 7: L. 5, 6, covs M. all uppers scattered O. all unders scattered O. (down M)	W/T. N.	½ green moss molluscs grass.
R141	♂	13/11/35. 6·30 PM. Shot on wing near margin of Sewi lake N. side. 120 ASL. (AREA 1 or 2) East Tanna. New Heb.	3/4 +	550	245	87	G. 65 C 51.	45	TL: L. 1, 8, covs. M. rump back O. (few). all unders O. (down O).	W/T. V.V.S.	1/1 grit, gravel, one dragonfly lava, beetles,
R223.	♀	4/12/35. 10.30 AM. fine sunny northerly wind. Shot on wing Sewi lake, 120 ASL. (AREA 1 or 2) East Tanna. New Heb.	O.S.E. 1/1 –	492.	244	91.	G. 57. C 45.	TR. 41 MTC 60	odd scattered body. (down M. unders).	W/T N.	—
R224	♂	4/12/35. 11 AM. ditto above. (R 223) East Tanna, New Hebrides.	1/1 +	530	245	85	G. 61 C. 49.	TR. 42 MTC. 61.	TL: L. 2, 7, covs. M. all uppers scattered few X crown O. neck chin O.	W. S. TL: V.S.	—
R225	♂	6/12/35. 10.30 AM raining Shot on wing Sewi lake, 120 ASL. (AREA 1 or 2) East Tanna. New Heb.	3/4 –	538	247	83	G. 62 C. 48.	TR. 43 MTC. 58.	TL: L. 8. covs O. all uppers O X crown C.	W. S. T. N.	
R226.	♂	6/12/35. 10.45 AM. ditto above (R225). East Tanna. New Hebrides.	1/2 –	540	247	85.	G. 62 C. 52	TR. 40 MTC 59.	TL: R. 7: L. 1, : covs C. all uppers O X patch back O. all unders O. (down C)		
SP142 R231.	U.S. U.S.	10/12/35. 6 AM. pair of nestlings (2 of about 8 oun) in small mount stream Esaka river (area 3) 600 ASL Eastern foothills area. Tanna, New Heb.									

1936

[F162?]

SP163. R.345.	U.S.	25/1/36. Fine, sun + cloud. 2 nestlings found with mob of about a dozen on W. side, Sewi lake 120 ASL. (areas 1 or 2) East Tanna, New Hebrides.									
SP164. R.350.	U.S.	30/1/36. duckling born in captivity since the 25th. Ditto above (R 345). East Tanna, New Hebrides.									
SP168 R363	U.S.	13/2/35. Duckling born in captivity from clutch of eggs put under domestic hen (egg blown, some spotted). (SPE 33 su nestregs) Believe this to be other than A. superciliosa pelew. poss either Nyroca australis or Aythyqueduula gibberifrons but as I have only recorded A. superciliosa have put it in here for transfer later.									
SP169 R364.	U.S.	14/2/35. Ditto above. These ducks hatched between daylight + 9 AM. on the 2/2/36 so are 11 + 12 days old.									
SP175 R367	U.S.	18/2/36. 3 PM. fine sun + cloud. In low laughed brow scrub on its own. on W side of Sewi (Kats). 130 ASL. area 2. East Tanna.	Half grown duckling								
SP178 R371	U.S.	26/2/36. 6 AM. 5 nestlings (of 6) in nest on long grass on flats W. side Sewi, Usual duck nest but duckling look like R363-4. Parent not seen properly but looked brownish or chestnut so it may be Ay gibberifrons.									

SOFT PARTS
IRIS light brown.
BILL dirty tan khaki with black patches.
LEGS & FEET. dull orange; webs + middle toe blackish.

Remarks

Very common on Sewi lake + up rivers flowing into it. Boys say it is going up the rivers a great deal at present, possibly for nest sites. Today I saw only 14 on the lake but boys shooting at dawn may have scared them up into the hills. Sewi is a fresh water lake about 120 acres in area, which is just crawling with dragon fly lava on which the ducks live.

(diam largest oocyte 8 mm). This specimen is the fattest wild duck I have ever seen. Skin very tender. No scales to weigh it but it is very heavy.

NOTE. 12/11/35. Saw mother duck on Sewi today defending young from Circus even taking to the air charging full belt at Circus, once nearly knocking it down into the water, it also splashed great gouts of water at the hawk + rushes at it across the surface. Although Circus will put big mobs into the air, this bird drove it away single handed.

(diam largest oocyte 6·5 mm).

Specimen very fat.

(test enl. 29 X 10 mm) (has lice).

Specimen very fat.

(oviduct slightly enlarged. diam largest oocyte 9 mm).

Specimen very fat.

(test enl. 39 X 15 mm).

Specimen very fat.

Specimen very fat.
(strange bare patch on back, no broken skin, but all feathers gone + new ones sprouting through down which also has consid moult. Does not look like an injury)

Direct to spirit for museum examination. SOFT PRTS. IRIS dark brown. BILL (upper M) blackish dark brown, darker base to lighter tip. (lower M) brownish flesh. LEGS & FEET. warm nigger brown, webs black. (Evidentally hatched out in dense ferny stream bank. Stream is very rocky + fast flowing only an average water width of about 10 ft. in very steep sided gully)

Direct to spirit for museum examination.
SOFT PARTS as for R231.

Direct to spirit for museum examination
SOFT PARTS as for R231

IRIS light brown. BILL darkish horn, tan tip plate. lower M pale pinkish horn. LEGS dark nigger brown. FEET pale nigger brown with pale strip along toe edges in each web. CLAWS horn tipped pale horn.

soft parts ditto above

IRIS brown BILL smoke blue except for black tip plate + dark areas behind nostrils at base of M and. lower M dark flesh pinky.
LEGS + FEET dark smoky grey.

IRIS greyish (light).
BILL tan tip plate + sides of bone below nostril. rest dark horn. lower M pinkish flesh. (one has deformed beak + enlarged eye)
LEGS nigger brown with pale stripe outer tarsus + minute tarsus.
FEET pale stripe outer toe + each toe, webs nigger brown claws white horn tipped black.

NESTS ? UNKNOWN TO ME ANYWHERE IN GROUP

9

ANOUS MINUTUS (BOIE)

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

Unknown to natives who call it in "pidgeon English": "pidgeon belong big sea" (ocean). They have no name for it in their language + only an odd boy has seen it blown ashore by a hurricane or well out to sea (20 miles) when crossing between islands in launches, steamers ect.

1935

SK & Rout. No.	Sex	Shooting Data.	Gon.	Total	W.	Tl.	Bill	Tr.	Moult	Abr.	Stomach
one hundred + eleven. SK111 R.240	♂	14/2/35. Blown ashore at Weasisi, E. Janna, by hurricane centred over N. New Heb. (Santo, Malik) (northern edge of area 1). East Janna, New Heb.	O.T. 4/4+	364	222.	120.	G:64. C:47. D@B: 8 W@B: 12.	TR 21. MTC 37.	W: R. 3,13,23: L. 3,13,23. seconds + covs. M. TL: R. 2,4; L. 5. covs. O. rump back M, nape crown O. all unders C X chin O.	W/T. mixed.	

1936

SK & Rout. No.	Sex	Shooting Data.	Gon.	Total	W.	Tl.	Bill	Tr.	Moult	Abr.	Stomach
SK161 R.348.	♂	30/1/36. 11 AM. wind + rain hurricane centred over Santo, northern group. Shot on wing over reef making for land. White Sands (area 1) East Janna. New Hebrides.	U.T. O/O. O.T. O/O	354.	222.	112.	G 61. C. 43 D@B: 8. W@B. 13	TR 22 MTC 36.5	W: R. 4, 12F, 13, 14F, 24F, upper covs. M. L: 3, 11F, 12, 24. Sec. O. TL: R. 4, 5, 4, 5, rump back C. nape crown O. all unders X chin M.	W/T mixed	Long crop + 6 TM. 1 small fish
SP165 R 349.	♂	30/1/36. 11.5 AM. ditto about (R. 348). East Janna, New Heb.	O.T. O/O +	357.	227.	114.	G 63 C. 45 D@B: 8.5 W@B: 11.	TR 23 MTC 37	W: R. 2, 3, ⊗ L. 2, 3, 15 16. seconds + covs. M. TL: R, 2, 5, L 2, 4, 6, covs C. all uppers O. all unders C X chin O.	W/T mixed	[redacted]
R 352	♂	31/1/36. Wind + rain. washed ashore in Sulphur Bay. East Janna. (area 1) New Heb. (found approx. 9 AM).	O.T. O/O +	350	223.	110	G 59. C. 42. D@B 7.5 W@B: 11.	TR 21 MTC 35	TL: L. 3, ? moult or ⊗. upper back, nape O crown C neck chin O.	W: N. T: S.	long crop + 3 TM. + blue or white bait.
SK164. R. 356.	♀	31/1/36. Wind + rain. Flew ashore against Warind 6 AM, on lee side of island, captured by hand above H.W. Weasisi, (North border area 1) East Janna, New Heb.	O/O	345	221.	INNER 55 / OUTER 109	G. 58 C 41 D.B. 7. W@B. 10	TR 19 MTC 36.	W: under covs. O (few). TL: R1, L.1, covs. M. upper back crown C. nape O breast neck M.	W/T. S.	O/O green slime.

SOFT PARTS.

IRIS:- brown: white down on lower lid, touch white down on upper lid.
BILL:- black.
LEGS:- light tan.
FEET:- darker tan, webs worn leather tan, claws jet black.

Remarks.

Have seen them out at sea when sailing between islands, but they are not common, especially at this time of year when they are generally south of the hurricane belt. Does not nest in the group to my knowledge nor do I know any native record of it.

(O.T. both test opake) (ABR:- W. outer prim M inner S.: TL. mixed average S.)

Specimen has lice. Badly shot damaged around head.

(U.T. right test enl O/O + left test enl. O/O +) (O.T. right test half black, left test quite black) (ABR: W: outer 3 prim U.M. others N: TL. mixed average fair)

Specimen has lice. Note inside mouth orange yellow.

(O.T. both test black). (ABR:- W: outer 1st prim M. others N. TL. mixed average S)

Specimen has lice, some put in spirit. To much damaged by sea for skinning. Legs + feet are very much darker being a dark nugget brown. (abrasion approximate guess). (both test opake black)

Specimen has lice

NEST ? UNKNOWN
TOME
ANYWHERE IN GROUP

13

ANOUS STOLIDUS (LINNÉ)

SOUTHERN.
NEW HEBRIDES

NATIVE NAMES

Has no native name, see note on Anous minutus under same heading (page 9)

1935

SK & Rout No.	Sex	Shooting Data	Gon.	Total	W.	Tl.	Bill	Tr.	Moult	Abr.	Stomach
SK112. R241.	♂	14/12/35. Washed ashore Weasisi Bay (north end area 1) after hurricane East Tanna, New Heb.	1/4	422	275	156.	G 64. C. 43 D@B: 11 W@B: 16.	TR. 24 MTC. 41.	W: R. 5. L 5, 11. covs. + seconds. (Seconds with prim). TL: R. 3. all uppers O. all unders O (few scattered)	W: V.S. Tl: mixed avek. S.	0/0 black oily residue.
SK113. R242.	♀	14/12/35. Washed ashore at Weasisi Bay after hurricane. (north end area 1) East Tanna. New Heb.	1/2	431	275	158	G 60. C. 40. D@B: 11 W@B: 16	TR 25 MTC. 36.	W: R. 10. L. 10.	W/T V.S.	0/0 black oily residue.

1936

SK & Rout No.	Sex	Shooting Data	Gon.	Total	W.	Tl.	Bill	Tr.	Moult	Abr.	Stomach
R357.	♀	1/2/36. Windy rain. Found dead on sewi ash plain (area 1) about 2 miles inland, 120 ASL. East Tanna. New Heb.	0/0	425	R 248 L 275	155	G 61. C. 42·5 D@B. 9·5. W@B: 14·75	TR. 24·5 MTC. 41.	W: R. 2, 3, 12, 13. L. 2, 3, 13, 14 ⊗ covs. O. TL: R 5, L. 4. covs M. all uppers C. all unders C	W/T. mixed	0/0 empty.

SOFT PARTS.

IRIS dark brown: white down on lower eyelid edge.
BILL black.
LEGS & FEET blackish brown.

Remarks

Have seen them at sea from launches + boats when sailing between islands, but generally not as often as Aminutus.

Specimen has lice.

(tist. pinkish).

Specimen has lice.

(some ooytes discoloured).

Specimen has lice.

(maggots already in head, entered at eyelid) (ABR: W outer prim M others N: TL: V.V.S.).

NON-NESTING

17

ARENARIA INTERPRES OAHUENSIS (MATHEWS).

NATIVE NAMES.

Aniwa Is. language (AREA 6). WURKWAGI

SOUTHERN NEW HEBRIDES.

1935

SK & POUT No.	SEX	SHOOTING DATA	GON.	TOTAL	W.	TL.	BILL.	TR.	MOULT	ABR.	STOMACH
SK132 R305	♀	20/12/35. 2. P.M. fine sunny. on white sand on E. side Ejaro tidal lagoon, rising tide, north end Aniwa Is. (AREA 6) Aniwa Is. New Heb.	1/4 –	245	154	60	G. 27 C. 22. D.O.B: 7. W.O.B: 6/26·5	TR. 27. MTC.	W: L. ⊗. TL: R.1, L.1, rump O. back M nape C. crown O. all unders M x chin O.	W/T N.	½ shell fish. (limpet shell)
R306	♂	20/12/35. same shot as above. R305. Aniwa Is. New Heb.	0/0 +	⊗	154	52	⊗	TR. 27 MTC. 26.	W: R.2, 3 F 18-20 L: 2, 3 F 17-20 } long under covs & seconds A: Covs O. TL: R.4, 5, L.5. rump back M. nape crown O. all unders M x chin consd	W/T	
R321.	♀	24/12/35. 11.30. AM fine, sun. shot on wing E side Ejaro tidal lagoon, rising tide. low water 10 AM. Aniwa Is. New Heb.	0/0	230	153	55	G. 27. C. 22·5	TR 25 MTC 26.	rump, back C. nape M. crown C. all unders M.	W/T N.	

SOFT PARTS.

ANIWA
- IRIS dark brown: light whitish down on upper + lower eyelids.
- BILL dark horn, greyish dark tip.
- LEGS & FEET salmon: joints dark greenish tinge. CLAWS black.

Remarks.

Fairly numerous on reef top around island + on mud + sand flats of Ejaro tidal lagoon, but is very shy + wide awake, generally has to be shot on wing. Generally in flocks of a dozen or so, sometimes in twos + threes + sometimes in big mobs of 50 or so. Much variation of variation of moult, strikingly apparent even when birds on wing. They are difficult to see when still, then all break together + fly very swiftly together, calling much, (a twittering note used much on wing).

(head blown to hell) (ABR: W. first prim V.M. others N.: TL: N.)

One of a flight of about a dozen. Note feet + legs. pale reddish brown, joints darker green.

(ABR: nape feathers M abraided).

PARISITIC

41

CACOMANTIS PYIRHOPHAMUS SCHISTACEIGULARIS (SHARPE)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.
East Tanna (White sands) (AREA 1) IAVANOU
Eastern foothills (AREA 3) } BIL BIL NOG-ONI
Esaka + Tanemelan dialect }

1935.

SK & ROUT. No.	SEX	SHOOTING DATA.	GON.	TOTAL	W.	TL.	BILL	TR.	MOULT	ABR.	STOMACH
SK 4. R. 8.	♂	2/10/35. Shot in gardenlands 200 ASL @ 8 A.M. fine sunny day. White Sands (AREA 1) East Tanna, New Heb	U.T. 1/2	271.	139.	142.	G 28. C 18.	20	rump ○ back M nape, crown ○. vent ○.	W/T M.	+ centipedes spider, large white grub, beetels, insects.
SK 24. R. 43.	♀	14/10/35. 10.30 AM. fine sun. in tree 15 ft. Semi bush 200 ASL. (AREA 1) White sands, East Tanna New Heb.	1/1 +	250	131.	133	G 29 C. 20.	21	NIL	W. N. T. S.	1/1 insects, grubs + 4 large shield shaped beetels. (stinkers)
R. 100.	♂	5/11/35. 9. AM. fine sun. in low tree 25 ft. semi bush 250 ASL (AREA 1) White Sands, East Tanna New Hebrides.	(moult ⊗) 1/2 -	240	138	moult ⊗	G 29 C. 20.	21.	TL: all X No. 4 L. covs all all uppers ○ all unders ○.	W. N. TL: ⊗	3/4 insects grubs.
SP 121 R 145.	♂	14/11/35. 8. AM. fine sun. shot low tree 15 ft. semi-bush, pandanus cane grass border (AREA 1). White sands, E. Tanna. New Hebrides.	1/2	255.	125	130	G 28 C 19	21.	W: R. 4, 6, 9, 16; L. 4, 9, 16. seconds + covs ○. TL: R. 1, 3; L. 1, covs M. rump M, back, nape ○, crown M. all unders + flanks M	W/T V.V.M.	—
SK 69. R 154.	♂	19/11/35. 11. AM. dull cloudy, low tree 10 ft. dense perhy underbrush, cane grass, low trees est. deep rugged valley side, Esaka valley (area 3). Eastern foothills, Tanna. N.H.	U.T. 1/2 +	258	130	138	G. 28 C. 19.	20	W: R. 3, 8. TL: R. 4 all uppers ○ flanks A, all unders ○ X breast.	W/T M.	3/4 beetels, including yellow shield shaped stinker, grubs.
SP 128 R. 165	U.S.	19/11/35. Shot 10.30 AM. near camp 450 ASL. dull cloudy. Esaka valley, Eastern foot hill (area NO 3) Tanna.									

SOFT PARTS.
(AREA 1) (AREA 3)
IRIS crimson
BILL black, blue grey tinge.
LEGS drab grey.
FEET upper toes drab grey, under toes yellow.

Remarks

Shot by native in garden lands. Moves about in early morning a lot. Common in White sands area where it call is often heard, + where Rhip. brenchi is common. Natives do not know of its parisitic habits.

(left test. enl 3/4 - R. test only 1/4 +)

Smaller than ♂ R 8. Shot in semi bush where Rhipidura brenchi is common. Perched silently overhead in a tree.

(diam largest oocyte 6·5 mm).

One of a pair calling in vicinity, also in vicinity I heard Petroica, Myagra + Rhipidura calling. Would answer when Petroica call was given. Believe it parisites Petroica as have several times found it where Pet. was calling, or nesting.

(ABR: TL. No 4 L. V.V.M. others N.).

To abraided for skin but should be very interesting to moult expert.

Shot in deep rugged valley which runs between + behind Esaka + Tanemelan villages (see Eastern foot hills area). This country is very rugged + almost precipitous rising steply to 2000 ft + more, where specimen was shot was about 800 ASL. These steep eastern foothills or slopes are covered for the most part by a low dense bush, 20 ft trees with a very dense fern, cane grass, stiff + tree fern, shrubs, ~~est~~ wild kava, taro, etc, underbrush under them. Uninhabited, an odd garden at wide intervals may be found. There are many landslides about, 11 (eleven) present in this valley alone.
(L: test. enl 4·5 x 3 mm. R test enl 3 x 3 mm).

Direct to spirit, darkness made measuring impossible.
This specimen was obtained near the entrance to the above described valley (R. 154)

PARISITIC (?)

45

CHALCITES LUCIDUS LAYARDI

SOUTHERN NEW HEBRIDES

NATIVE NAMES

ANIWA Is. (area No 6) VANVANI

1936

Sk & Rout No.	Sex	Shooting Data	Gon.	Total	W	Tl.	Bill	Tr.	Moult	Abr.	Stomach
SP158 R332	♀	4/1/36. 2 PM. fine sunny. in garden lands 60 ASL. (Nerioper's garden) north central part of Aniwa Is. (area 6) Aniwa Is. New Heb.	1/2+	⊗	73+	⊗	G. 21. C. 14·5. WBN. 6·5 NtT. 11·25.	⊗	W.R. 2, ⊗ L. 5, 9, 11, 13, 15 ⊗ covs, seconds M. TL: ⊗ back M, nape crown O. breast M.	⊗	insects beetels.

SOFT PARTS

ANIWA Is. (area No 6)

IRIS dark brown, eyelid edge pale yellowish white.

BILL black, prominent nostrils, gape black.

LEGS & FEET bluish black under toes paler.

REMARKS

Shot about to hell. By no means uncommon on island (parisitic?) but very hard to locate. There is another & larger species of brown cuckoo visits the island at certain times, the boys call this other bird meniefatungfatung. What is it? the New Zealand bird on migration to the Solomons?

NESTS
49

CHALCOPHAPS INDICA SANDWICHENSIS (RAMSAY).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES

East Tanna (White Sands) (AREAS 1, 2, 5.) } MĀK (MRK).

Anuwa (area 6). FOITU

1935.

SK&RoutNo.	Sex	SHOOTING DATA	GON.	TOTAL	W.	TL.	BILL	TR	MOULT	ABR	STOMACH
R17	♂	4/10/35. 10.30AM sun v. cloudy day after rain. feeding on ground 200ASL. Semi bush (area 1) Janamukel. White Sands, East Tanna New Heb.	3/4+	247	145	88	G.23 C.16	26.	W: inner wing covs M. secondries O.	W/T V.S.	¼ seeds banyan gravel, lidge pepper vine seed.
R24	♂	5/10/35. 8.AM garden land 6ft tree, 50ASL (area 1). fine sunny day Newcastle. White Sands, East Tanna. New Heb.	3/4 –	247	140	83.	G.23 C.16.	28.	NIL	W/T N.	¼ hard banyan seeds, gravel peppers ect.
SP106 R80	U.S.	25/10/35. fledgeling brought in by boy during my absence. White Sands. (area 1). East Tanna, New Heb									
SP.107 R.82.	U.S.	31/10/35. 10.AM. fine sun. low tree 15ft garden land 150ASL. (area 1) Tarki White Sands, East Tanna New Heb.	–	238	140	85	G.22 C.16.	27.	TL: covs O. upper back O neck M. rent, belly, A. brest O.	W/T F.	
R94	♂	4/11/35. 11.AM. fine sun. 10ft tree garden lands. 250ASL (area 1) White sands, East Tanna. New Heb.	3/4 – ~~101~~	246	146	87	G.24 C.16.	27.	NIL	W/T N.	¼ seeds gravel.
[157] SP. R304	U.S.	20/12/35. Direct to spirit, too damaged to skin. ~~101~~ Anuwa Is.									

To dark for examination shot 5 P.M. garden lands 60ASL. N. bent. Island.

SOFT PARTS.

East Tanna. AREAS 1, 2, 3, 5 { IRIS dark brown; eyelid edged dark red skin. BILL. light reddish brown, darker @ base. LEGS & FEET dull red.

Anuwa Is. AREA 6. { IRIS dark brown, eyelid edged dark red skin. bare skin flavus. bill black. BILL orange base, deep red tip. LEGS & FEET. red. CLAWS dark horn.

REMARKS

Very common in all types of country in this area (except semi ash plain) especially where small leafed banyan is in fruit, often see half a dozen feeding on ground under one.

Shot in deep gully near Newcastle. bird on tree 20ft higher up riding than road.

direct to spirit without any examination.

(test end 15X5 mm).

Not by any means as common as on Tanna, 3-400 for whole island would be an over estimate possably 250 nearer the mark.

NESTS

53 CIRCUS APPROXIMANS WOLFI & AN UNKNOWN. ?

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

East Tanna (area 1) QUIREA

Anuwa Is. (area 6). MOMKAY.

1935

SK & ROUTE No.	SEX	SHOOTING DATA	GON	TOTAL	W	TL	BILL	TR	MOULT	ABR	STOMACH
SK114 R243	♂	14/12/35. caught unable to rise in deluge rain + wind during hurricane, + caught by running down on Sand ash plain 250 ASL Sewi, E Tanna.	1/2 –	515+	375 +	210 +	G 43 C. 35 WOB 30	98 MTC 55	W: L. 10.	W: S T: VM.	0 bones + 0 small residue.

1936

SK & ROUTE No.	SEX	SHOOTING DATA	GON	TOTAL	W	TL	BILL	TR	MOULT	ABR	STOMACH
SK158 R343	♂	23/1/36. 3 PM. fine sunny on grass flats W side Sewi lake. (AREA 2) shot perched on ground. 120 ASL. West Sewi. East Tanna.	1/4 –	530	400	220	G. 43 C. 33 RNTT. 24	TR 94 MTC 57.	W: R 4, 5. L. 3-6.	W: N T: S	½ insects, wasps beetls, dragon fly lava. has intestinal worms
SK165 R358	♀	1/2/36 2 PM. wind + rain. drinking at water's edge NW side Sewi lake 150 ASL (AREA 2) East Tanna.	1/4 +	562	417	236	G. 46 C. 38 RNTT. 26	TR. 102 MTC 61.	W: R. 20 F, 21, L: 20-22, all F. covs 0. TL. R. I.	W/T N.	crop + STM. + complete rat also residue feathers.

SOFT PARTS

R 243. (~~AREA 1 or 2~~)
- IRIS lemon yellow, black outer ring. eyelid margin narrow yellow skin ring.
- BILL black, bluish skin base, except for frontal patch on culmen which is pale yellow.
- LEGS & FEET yellow. CLAWS black.

R. 343.
- IRIS dark brown, bare skin around eye dirty whitish.
- BILL black, base bluish horn, gape bluish, bare skin above behind nostrils pale yellow.
- LEGS & FEET lemon yellow CLAWS black.

REMARKS

This bird is faster on wing + more pugnacious than Circus. Boys call it literaly "white quirea" + the other "black quirea." It is a harrier but quite different to any circus I have ever handled in the north of the group. (once or twice Harrison + myself saw an very whitish Circus on the Pangkumu River, Malekula which we took to be an old Circus, but was probably this bird which is distinct plumage difference + size difference most marked.) (NB Harrisons notes about Jan 1935 TISMAN onway back from Quesso.) The bird I know as C. wolfi is a dark brown under. streaked white. This bird what ever it is has a noble carrage (perched) in life + not so slouched as the brown Circus.

This is the bird I know as C. approx. wolfi in the north of the group. Possably this is a sub adult bird if they have a sub adult 1st year plumage. It is certainly the commonest one in the north of the group.

(intestinal parasitic worms put in spirit)

IRIS dark brown, bare skin bluish. rest as R. 343.

Specimen very fat. Has parasites, lice + a flying tick.

(Note I put drinking, but these birds wade in the lake margins + feed on dragon fly lava, also as they leave the water to hatch ^

NESTS
65

COLLOCALIA ESCULENTA UROPYGIALIS (GRAY)

SOUTHERN NEW HEBRIDES

NATIVE NAMES
East Tanna (AREA 1) COULIE KABOU

1935

SK & ROUT No	SEX	SHOOTING DATA	GONAD	TOTAL (EX WINGS)	W.	TAIL	BILL	TR	MOULT	ABR. STOMACH	REMARKS
SK 6 R.13.	♀	3/10/35 10.AM. sun, dull, showry. Switched with twigs while hawking on road. White Sands, East Tanna 150ASL. (area 1)	1/2 -	90	100	43	G.9 C.3	9	all uppers 0.	W/T N.	1/4 minute insects. Very common everywhere in White Sands area. Nests principally in banyans amongst roots.
R31.	♀	11/10/35 killed by a handfull of coral in open paddock 120ASL. Tarki, White Sands (area 1) East Tanna.	1/4 -	100	109	44	G 10 C. 3.	9	NIL	W/T N.	1/4 minute insects. Larger than R13.
R96	♀	12/11/35. bright sunny day on wing 10. AM. near banyan Tanimalla, 200ASL. White Sands (area 1) East Tanna.	1/1 ++	95	98	43	G 10 C. 4.	8	NIL	W/T N.	1/4 minute insects. (broken large coryzin evident). SOFT PARTS IRIS brown. BILL black, LEGS & FEET. flesh. In usual place in banyan roots, 20ft above ground. Colony of about 40 which is large for this area, as the usual is seldom more than 6 or 7 pairs to a colony (all there is room for generally) It is common to find only 1 or 2 nests together in a banyan root cavity. Rats must take a heavy toll of eggs + young.
SP117 R. ?	U.S.	8/11/35. 3 nestlings, not examined. go with 2 nest (see S.P. N. VI) White Sands (area 1) East Tanna.									SOFT PARTS as above R. ? SP. 117. Washed out by rain. Mortality in this species very heavy in hurricane must have reached at least 80% in nestlings.
SP145 R238.	U.S.	11/12/35. 2 nestlings no data, 2 found during hurricane White Sands. (area 1) East Tanna, New Hebrides.									

SOFT PARTS.
East Tanna (area 1) IRIS dark brown. BILL black, small + hooked, very wide gape. LEGS & FEET. black, very weak + almost useless.

NESTS 69

COLUMBA VITIENSIS LEOPOLDI (TRISTRAM)

SOUTHERN NEW HEBRIDES

NATIVE NAMES
East Tanna (area 1) ILEU.
Eastern foothills (area 3) {Esaka, Janemelan} YELU
Aniwa Is. (area 6) NESTS {THEOWE, FEOWE}.

1935

Sk & Rout No.	Sex	SHOOTING DATA.	Gonad.	Total	W	Tail	Bill	Tr.	MOULT	ABR	STOMACH
R44	♂	14/10/35. 4 P.M. fine sun. shot in morning tree 40 ft. Semi bush 400 ASL. (area 3) Samaria East Tanna.	O.T. 1/4+	423	235	151	G 33 C. 21.	32.	W: R. 1, 9, 10, 13, 18; L. 1, 9, 10, 13, 18. covs, seconds o. TL: R. 2, 4; L. 1, 3 covs M. all uppers o all unders M X neck chin o	W: VVS T: F	1/1 fruit.
R139	♂	13/11/35. 4 P.M. fine sunny. in cocoa bay fig tree. 40 ft. Eastern foothills 600 ASL (area 3) at foot of mts rising to 3000 ft East Tanna.	3/4	420	232	157	G 35 C 25.	32.	W: R. 8, L. 8. rump o belly vent o (neck ⊗)	W/T V.V.S.	1/1 fruit, berries, 2 large black pebbles.
R160	♂	19/11/35. 4 P.M. dull cloudy. shot large Morton Bay fig banyan 30 ft. semi bush 500 ASL. (area 3) Eastern foot hills East Tanna.	O.T. 3/4 -	415	231	157	G 35 C. 23.	32.	W: covs o. uppers + unders few scattered.	W/T F	1/1 fruit berries stones.
SK84 R184.	♂	22/11/35. 6 A.M. fine sunny. feeding in low tree 15 ft. dense bush under brush ferns ect. 600 ASL (area 3). Esaka. Eastern foothills. East Tanna.	3/4 -	450	250	170	G 36 C 24	32.	W: R. 18-22 near seconds + covs M. TL: L. 4, 6 upper covs A. under covs o neck o vent M.	W: N. T: VS. odd prim.	1/1 figs, banyan berries, large black pebble, sword smaller.
R192	♂	22/11/35. 6.30 A.M. near above R. 184. feeding in big tree 40 ft. 600 ASL. Esaka (area 3) Eastern foot hills East Tanna.	1/2+	412	235	154	G 35 C 21.	29.	W: R. 1, 2, 10, 14, 17. L. 1, 10, 14, 17. covs, seconds o. TL: covs o. uppers scattered o X crown. flanks belly M breast o.	W/T N.	1/1 morton bay figs. gravel.
R193	♀	22/11/35. 5 P.M. fine sun. Similar locality to above 2. 600 ASL (area 3) Janemelan, Eastern foot hills East Tanna.	O.M.E. 1/1	405.	220	146	G 34 C. 22.	29.	white feathers of chin A. (rest nil).	W/T V.S.	crop full red banyan fruit stones ect + STM. usual.
R194	♂	22/11/35. 5.5 P.M. shot with above (R193) possably mated. East Tanna.	3/4 -	420	230	160	G 37 C 23.	29.	W: R. 4. covs. o TL: covs o. all uppers X crown scattered few o flanks, vent belly M. breast neck, o white of chin A.	W/T N.	1/1 fruit stones.
R255.	♀	17/12/35. 5.30 P.M. fine sun. in high tree, semi bush. 20 ASL (area 6) near sea. Aniwa Is.	O.S.E. 1/1 -	410	223	146	G 36 C. 26.	TR. 26/MTC 42.5	upper back. o	W/T V.S.	1/1 fruit, black gravel, at least 1½ doz pebbles various sizes.
SK120	♂	18/12/35. 11 A.M. odd sprinkles, sun + cloud. Garden land 40 ASL. (area 6) Aniwa Is.	1/2+	420	220	153	G 35 C 24	26.	W: R. 1; L. 1, TL: covs. M. all uppers o. vent M. all unders few scattered.	W: N T: F.	1/1 fruit peppers, stones.
R272	♂	18/12/35. 4 P.M. odd sprinkles sun + cloud. Garden land 40 ASL. (area 6). Aniwa Island.	1/2 -	430	230	151	G 36 C 24.	28.	W: R. 7, 9, 13, 20. L. 1, 2, 13, seconds covs o. TL: R. all L. 2. all uppers o few scattered flanks o.	W/T C.	1/1 fruit stones ect.

SOFT PARTS.
TANNA (AREAS 1, 3, 5.)
IRIS yellow, crimson outering. bare red skin patch around eye. lower eyelid greyish flesh.
BILL red with white horn tip upper + lower Mand.
LEGS & FEET crimson CLAWS white.

ANIWA (area 6). IRIS inner golden ring outer pale orange (REST of description ditto Tanna).

REMARKS.

Found more in hills 400 to 1000 ft. occasionally visits white sands area.
Much larger + brighter than what I remember of Santo specimens.

(R. test opake)

Badly shot damaged.

(test enl 18 X 8 mm)
Very iodine unders + extensive, back bronze green very extensive.

(R test opake)
Shot in Esaka valley (behind Esaka + Janemelan) foothills rising to 2000 ft or more plateau.
IRIS yellowish orange, bare patch red skin around eye, lower eyelid, pale greyish flesh.

(test enl 15 X 7 mm)

(diam largest oocyte 8 mm. oviduct much enlarged) (ABR some body abrasion).
This specimen had very brilliant irrescendant uppers, + all unders were deep plumbous + over very extensive area, all unders except tail covs. being tinged almost iodine (dup).

(Test enl 17 X 7 mm).
Common throughout the whole island + similar to Tanna specimens, perhaps tending smaller by weight (no scales only my guess) & nests on island at anything from 10 to 30 ft.

(oviduct slightly enlarged. diam largest oocyte 8 mm).

Had a very large flying tick (put into spirit). This bird slightly larger than usual Aniwan birds, + also has more plumbous unders, but I think it would weight less than usual Tanna specimens

NESTS.
77

DUCULA PACIFICA TARRALI (BONAP)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.
Eastern foothills (area 3) (Tanemulan) } IAOWEEN.
Western slope. Labei plateau (Infetana) } IAKOMNELAWAN.
Southern slopes south of Labei plateau } IAQUANETUAN.

1935 (all culmen measurements to behind nob).

SK & Rout.	Sex.	SHOOTING DATA	Gon.	TOTAL	W.	Tail	Bill	Tr.	MOULT.		ABR.	STOMACH
R210.	♂	28/11/35. 4 PM. cloudy, feeding low tree, dense undergrowth ferns, etc. under low trees average height 30 ft. Labei plateau. 2,200' ASL. (area 4) South Central abts. Tanna.	1/2+	440	230	145.	G 38 C 27. med. to small.	35.	W: R. 3, 14, 17. L. 3, 13, 14, 17. TL: L 6. covs O. all uppers O x crown. rump, belly, flanks C. all other unders O.	W/T. mixed	½ large seeded yellow fruit (has parasitic intestinal worms)	
SK98. R 213.	♂	29/11/35. 8 AM. showery feeding in low tree 15 ft. average bush. 30 ft. dense fern undergrowth. 2300 ASL (area 4) Labei plateau. South central Abts. Tanna.	1/1	420	255	150	G. 40. C 31. large	34.	TL: up. covs M un. covs O. rump, upper back M back. nape O rest flanks, belly, breast neck M.	W/T mixed	½ large seeded yellow fruits. (has parasitic worms).	
R214	♂	29/11/35. ditto above. 12.30 PM. Labei plateau (area 4) South cent. abts. Tanna.	1/2-	425	243	143	G. 43 C. 31. medium to large	30	chin O. (few scattered body moults)	W/T S.	¼ fruit residue (has parasitic worms).	
R218.	♀	30/11/35. 9 AM. raining as to above. 2000 ASL. Labei plateau (area 4) South Central abts. Tanna.	OSE. 3/4	412	236	150	G 41. C 25 small.	34.	TL: covs. O. all uppers O x nape crown M all unders O x neck C.	W/T mixed	¾ large seeded yellow fruit. (has intest. par. worms).	
R219	♂	30/11/35. 9.30 AM. ditto above. 2100 ASL. Labei plateau (area 4) South Central abts. Tanna.	1/2+	424	243	150	G 40. C. 28 medium	36.	rump M, all uppers x crown O. neck O. all other unders scattered few.	W/T S.	½ large seeded yellow fruit. (has intest. worms)	

1936

| SK154 R. 331. | ♂ | 3/1/36. 2.30 PM. fine sunny. Low hardwood scrub 50 ASL. north central part of island (area 6) Aneiwa Is. | 1/4- | 420 | 232 | 144 | G 44 C 23. small. | 32 | W: R 5 covs M. TL: covs. O. back O nape crown M. chin M. | W/T C. | ¾ fruit berries. | |

SOFT PARTS.
Mountains (Labei plateau area 4) { IRIS crimson, eyelids grey. BILL black, not at base of culmen. LEGS & FEET red, pale under toes CLAWS black.

REMARKS.

Common in Labei plateau area but more about the 2000 ft mark, where at this season it feeds on a large seeded yellow fruit which only grows in the mountains (1000 or over). D. pac. is only found in the mountains, never appears on the volcanic basin on E. slope but approaches close to the sea in the western and southern areas, due to higher mts. being nearer the sea in these areas. It may at odd times (hurricanes appearing in April) are it is very rare soon departs, as it is only 1000 or so. Generally speaking its areas are from 1500 ft. upwards these limits are stated from the eastern side of the islands.
(all culmen measurements to behind nob.) (ABR: W: 2 outer prim V.M. ~~also~~ lappets N. TL 2 outer prim on R. V.M rest N.)

Some have even more iodine unders than this specimen, but this seems a fair average sample. A good deal of variation is found in this species. Santo (Hog Harbor) also Malekula, have a smaller bird with no trace of rocking cinders, but pure greyish unders, + a shorter tail. Pos. a Columba. Malekula has the same ducula as Tanna, but I never saw it on Santo, possibly in hills, but at Hog Harbour I only saw Columba similar to Australian white headed pigeon C. norfolciensis.
(test. eml. 17 x 9 mm) (ABR:- W: odd prim M, & S, + N; TL: ditto)

shot damaged.

(diam largest oocyte 5 mm. oviduct slightly enlarged) (ABR:- W: 3 outer prim C others N: TL: S.)

accidental visitor from Tanna. Only 2 on whole island while I was there. Occasionally a few appear after strong winds, Does not breed on the island at all. Seems similar to Tanna samples. Natives have no name in their language for it but use Tanna name of Iaoween.
(This specimen very fat. Neck badly damaged by shot. skin taken as proof of accidental occurrence at sea (Lab))

NESTS 85

ERYTHRURA TRICHROA CYANEIFRONS (LAYARD).

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

East Tanna (area 1). KOYONGWELLI

Eastern foothills (area 3) Esaka } KOMNAHMUNAH.

Eastern foothills (area 3) Lanenelan } KOMNHMUNAH.

1935

SK & Rout.	Sex.	Shooting Data.	Gon.	Total.	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach.
SK45. R.91.	♀	2/11/35. 3 PM. bright sun. in low shrub 2 ft. garden land. 200 ASL. (area 1). White Sands. East Tanna.	1/2+	119.	57	38	G.12. C.11.	18.	Nil.	W/T S.	3/4 grass seed. (tassel of wild cane?).
SK47 R.97.	♀ ?	2/11/35. 12 AM. bright sun. patch of cane grass 4 ft. garden land. 200 ASL. (area 1) White Sands. East Tanna.	gutted	120.	58.	38	G. 12. C. 10	18.	TL: R. 2. chin o.	W: S T: F.	gutted by boy grass seeds in cavity.
SK50 R109.	♀	7/11/35. 11.30. AM dull showy in sugar cane clump 2 ft. old 1st year garden in grass. 200 ASL (area 1). White Sands, E. Tanna.	3/4.	117.	53.	39.	G.12. C. 11.	17.	Nil.	W: C. T: F.	neck crop 1/4 grass seeds. STM 1/2 grass seeds.
R113.	♀	8/11/35. 11. AM cloud + sun. in tree 15 ft on edge of garden land 200 ASL. (area 1) same garden as 91, 109. White Sands. East Tanna.	3/4	⊗	57	⊗	⊗	18.	no wing or body moult. TL: ⊗.	W: N T: ⊗	1/2 grass seeds.
SK51 R114.	♂	8/11/35. 3 PM. cloud + sun. in grass clump 4 ft. garden land 200 ASL. (area 1) White Sands. East Tanna.	1/1++	125	58	45	G.12. C.10.	18.	NIL	W/T V.V.S.	1/2 grass seeds.
SP119 R131.	♀	12/11/35. 6. AM fine sun in grass clump 2 ft. in same garden as R.91. ect. 200 ASL (area 1) White Sands East Tanna.	3/4+	113.	58	45	G. 12 C. 10.	18.	cheeks o. chin o.	W/T V.V.S.	—
SK67. R147.	♀	15/11/35. 3 PM fine sun. shot feeding on ground on road in Lantana cane grass borders, semi. (area 1) 250 ASL. semi borders. E. Tanna.	1/2−	115.	58.	35.	G.11 C.10	17.	Nil.	W/T N.	1/4 grass seeds volcanic grit?
SP124 R152.	U.S.	13/11/35. 10 AM. fledged nestling unsexed direct to spirit for museum examination Esaka village. Eastern foothills (area 3) East Tanna.									
SP132 R173	U.S.	21/11/35 8. AM. 2 nestlings in broken nest with one dead one, nest at foot of fern on ground well hidden, dense bush, foothills or hill country. behind Esaka village 800 ASL (area 3) Eastern foothills, East Tanna.									
SK88 R197.	♂	26/11/35. 6. AM fine sun garden lands, behind Esaka village 6-800 ASL (area 3) Eastern foothills East Tanna.	U.T. 3/4+	128	55	46	G 11 C 10.	18	NIL	W/T N.	1/4 grass, seed of tassel bush (?)
SK89 R198.	♂	26/11/35. 6.30 AM. ditto above. R197. but shot a little distance away (1/4 of a mile further north) Esaka, Tanna (area 3)	1/2−	123	55	40	G 11.5 C 10.	18.	NIL	W/T V.V.S.	1/4 small hard black seeds.
SK105 R228	♀	7/12/35. 12-3 PM. showry. garden lands 200 ASL. White Sands (area 1). East Tanna.	1/2.	113	56	36	G. 12 C. 10.	17	back M. nape o.	W/T N.	1/2 grass seeds.

SOFT PARTS.

East Tanna (area 1). IRIS dark brown. BILL black. LEGS & FEET flesh.

REMARKS.

Not common (at this time of year anyway) in this area, but well known to natives. First I have seen in 4 weeks constant work in area.

(since found above not correct 1/12/35 but possibly they moved into area about this date from foothills where they nest).

(only a few oocytes lift to identify sex. am positive ♀ but put ? for safety)

This skin has lice on it + badly shot about. Shot in same old garden as R.91. It was with 2 others making possibly family group of 4. This garden is one to 2 years old + has been allowed to return to grass, principally a type of paspalum, which is at present in seed + on which E. trich. feeds. E. trich. will also go bush in trees as I have seen it in semi bush (area 1) in a Fiji plum tree 40 ft up. But it favours grass + garden lands + open type country especially near or in cane grass types or where there is a good deal of it about.

Shot in same garden as R. 91, 109. flew off ground into low shrub then into tree. Saw several others in different gardens. Evidentally becoming more common in this area.

This specimen blown to hell. head + tail badly shot about.

Shot in same garden as R.91, 109, 113. making the 4th of this small flock of four which inhabited this garden.

(test encl. 11 X 6 mm)

Another flock of about a doyen seem to have come into this garden to feed on the grass seed which is very thick on the ground.

No blue on head, dusky green on back, belly greyish tinge. Bill has yellow margin on gape edge of lower mand. It has small bright sky blue knobs on each gape edge (⊕) making 4 nobs in all. gape + inside mouth very yellow. IRIS dark brown. BILL black X for yellow edge. FEET. flesh. What is it sub. spec. or juv. E. trichroa?

(since placed it as juv. E. trich. definatly by later series 1/1/36).

Found in cane grass, semi bush area, broken nest near by. Boy said in hole in a large stone (?). IRIS dark brown. BILL orange yellow X for 2 dark patches upper M. gape yellow with a bright blue nob on each M. on each side (4 nobs) legs + feet pinkish flesh.

direct to spirit for museum examination. Soft parts as for R.152.

Brough in by boy. Very bright green unders. almost yellowish green around neck + blue patch.

(L. test encl 8 X 5 mm. R test encl. 6 x 5 mm).

more greyish green unders. not as bright as R 197. Poss. a sub adult. These seeds may be off the tassel shrub which boys say the young birds feed on.

(test encl. 3·5 X 2 mm).

Poss. a sub adult. Only trace blue on head, no blue nots on gape.

NESTS. 93

FALCO PEREGRINUS ERNESTI (SHARPE)

(POSSABLY 2 SPECIES-SUB)

SOUTHERN. NEW HEBRIDES.

NATIVE NAMES.
Universal Tanna native name MALICUM. (c as K).
semi sacred, bird. chiefs head dress feathers.

1935

SK & ROUT NO	SEX	SHOOTING DATA.	GONAD	TOTAL.	W	TL.	BILL	TR.	MOULT.	ABR.	STOMACH.
SK101 R. 217.	♂	30/11/35. 10 AM. raining. on wing over open patch grass ferns, on Labet plateau edge. 2500 ASL (area 3+4 border 3). falling gradually down to 300 ASL. South central Nth. Tanna.	O.T. 1/2 ~~OT~~	405	295	145	G 29 C. 23.	48.	W: under covs. O rump back M, all uppers O scattered few. unders O scattered few.	W: VS. TL: F.	+ the greater part of a fresh chalophaps. crop + stomach full.

1936

SK & ROUT NO	SEX	SHOOTING DATA.	GONAD	TOTAL.	W	TL.	BILL	TR.	MOULT.	ABR.	STOMACH.
SK155. R. 333.	♀ F.	7/1/36. caught 10 AM. killed 5 PM. fine sun. 30 ft on bare low tense brush on slopes rising to 2000 ft + more behind Iparkor village 600 ASL. (area 3) Eastern foothills Tanna.	1/2 –	438.	320	159.	G 34 C 28.	TR 54. MTC. 68.	W: R. 4, 18, L. 4 F. under covs C. upper covs seconds O TL: R. 1, L. 1, all uppers + unders O	W/T. mixed ~~OT~~	

SOFT PARTS.

R. 217. IRIS dark brown, bare skin around eye yellowish tinge.
BILL dark horn, pale base shading into yellowish tinged flesh.
LEGS & FEET bright yellow, claws black.

R. 333 IRIS dark brown, bare skin around eye, pale flesh with dark tinge (bluish) lower lid.
BILL black tip, both uppers lower M. pale bluish horn base. bare skin at base bluish tinge. gape pale bluish flesh.
LEGS & FEET pale flesh (yellowish tinge) claws. claws black, much damaged.

REMARKS.
Fairly common in area, but shy. Occasionally found near Siwi Lake where it will catch + kill ducks. Seems to favour the steep plateau edge as I have seen 4 or 5 here only around there at one time, then swooping like a bullet down the very steep hillside from 800 ft to 400 ft in a second or two, keeping a few feet above the stunted bush which covers these slopes. Boys say it only nests amongst stones in exposed landslides on these hill faces, very inaccessable places. I doubt it preys on the 2 types of petrels which nest along these hills. I found the Falco preying on petrels at the colony on Inakahi Jr. (see R. 1st black). my notes with Harrisson 31/1/35) + boys say it visits petrel colony on Inakahi frequently.

Specimen very thin. Shot at foot of slopes mentioned in R. 217. Different unders to R. 217 + bars being transverse + distinct. undoubtedly F. ernesti.

(ABR. :- W: 2 outer prim V.M. odd inner V.M. particularly colour abrasion. TL. V.V.M except 2 inner prim S.)

UNKNOWN ?

97

FREGATA ARIEL (GRAY).

SOUTHERN.
NEW HEBRIDES.

NATIVE NAMES

East Tanna (area 1). NLINGI

1935 (tail measured from centre for inner + outer)

SK & Rout.	Sex	Shooting Data.	Gonad	Total	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach
SK108 R234.	♀	11/12/35. 8 AM. dulls heavy strong ESE wind, big seas. Hurricane centred N. of our Isl. Birds travelling along coast to southward (area 1) White Sands East Tanna	1/4 +	850	570	INNER 156 OUTER 370	C. 120 C. 96. D@B 25. L.D. 12.5 W@B. 28.	TR. 21.5 MTC. 63	W: L ⊗ TL: R. 2. nape crown o chin o	W/T N. ↛	long crop o/o. STM fish bones + residue ⅓ similar blacks bits + pieces of pumice, as in Ptredroma.
SK109 R235.	♀	11/12/35. 9.30 AM. ditto above R234. (area 1) East Tanna.	1/4 +	785	522	INNER 140 OUTER 312.	C. 88. C. 93 D@B. 23. L.D. 12. W@B 27.	TR 19 MTC 65	W: L. ⊗ nape crown o chin o	W/T S. ↛	long crop o/o STM. ⅓ green slime.
R236	♀	11/12/35. 9.45 AM. ditto above R 234. (area 1) East Tanna	1/4	780	543	INNER 145 OUTER 325 ↛	C. 115 C. 91. D@B. 24 L.D. 13 W@B. 28.	TR. 20 MTC 61.	TL: R 2. nape C crown o nuch o chin o	W/T missed ↛	long crop ⅓ thick greenish grey slime, white shells STM ⅓ ditto.

SOFT PARTS

IRIS dark brown, bare skin in front + above eye, red. narrow margin all eyelid red, below eye pale bluish grey.
BILL pale bluish horn, dark horn extreme tip, odd skin patches at base red. skin under lower M. red.
FEET pale red outer toe + middle toe. inner 2 toes flesh. claws blackish horn, inner half outer web pale red, rest + inner web pale flesh, under toes pinkish, leg where exposed, pale flesh.

98

REMARKS

Strong ESE wind + a big sea, nearly 2 weeks of heavy weather. Many birds on wing following coast southwards, over land + sea some heigh some low.

(ABR:- an odd tail prim. + wing inner prim. has F abrasion)

(ABR:- a tendency towards slight colour abrasion some feathers being brownish).
abrasion in both wings + tail has big range. Wings have good deal colour abr. + odd inner prim. have fair. Tail has full range from N to VM. body feathers also had some colour abrasion, being brown in parts.

(uneven tail, longest outer feather much abraided. Rout. 85 mm longer than L.)([redacted]:-

NESTS.
101

FREGETTA ALBIGULARIS (FINSCH).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.
Eastern foothills (area 3) :- WEIMESUPE.

1935

SK & ROUT.	SEX	SHOOTING DATA	GONAD	TOTAL	W.	TAIL	BILL	TR	MOULT	ABR	STOMACH.
SK63. R. 138	♀	12/11/35. 8 AM. fine sunny. caught in nesting burrow; no egg, 2 ft long, only slip prominent. Altitude 1400 ASL. Nickel at foot of mt. rising to 3000 ft. (area 3) Eastern foothills Tanna.	3/4+ 3+ 4	245	210	CENT. FETHER 90	G. 30 C. 18 RNTT. 14	TR 49 MTC 36	NIL	W/T N.	0/0 oily residue.

SOFT PARTS
Eastern foothills (area 3.)
IRIS dark brown.
BILL black, single nostril.
LEGS & FEET jet black.

REMARKS.
Does not nest in large colonies but has nesting burrows scattered all over these volcanic hills which are very steep on this eastern face being the inner slope of the old large volcanic crater. They rise to 3000 ft or more average 2000 ft. F. albigularis & P. thermin. nidgax. nest all over these slopes in scattered burrows from 300 ft ASL to the top of the highest mountain at 3200 ft. They nest anything up to 8 miles inland from the nearest sea the average distance being about 6 miles. This bird is non colonial. burrows average 4 ft approximately but range up to 6 ft occasionally so boys say. chest a few scantly bits of fern or leaves & grass. (diam largest oocyte 4 mm).

NESTS.
113

HALCYON CHLORIS JULIAE (HEINE) & TANNENSIS (SHARPE).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.
East Tanna (area 1) KOUVETI
Aneityum Is. (area 6.) KEIEMO

SOFT PARTS.
IRIS dark brown.
BILL upper M. black. lower M. black tip half (or ⅓) white horn base half.
LEGS & FEET. flesh grey to darker slate + blackish shacks.

1935

SK + Rout No.	Sex	Shooting Data.	Gonad	Total	W.	Tail	Bill	Tr.	Moult.	Abr.	Stomach	Remarks.
SK 8. R.15.	♂	4/10/35. sunny day odd cloud + light showers. rainy previous night. low tree 10 ft garden lands (area 1) 150 ASL Tanemuhel. White Sands. East Tanna.	1/2+	225.	102	75	C 53 C 38.	17	NIL	W/T V.S.	3/4 blowfly, beetles + insects.	common around East Tanna area in all types country, except semi bare ash plain + it even goes onto it occasionally. This bird is nearly always parasited by a flying tick (spirit specimens). Have seen a large species (also on Tyto alba) + a small one which is found on Ground Pigeon + often Halcyons shot.
SK 11. R 21.	♀	5/10/35. 10 AM fine sun. in tree 10 ft, garden land. 175 ASL (area 1.) Tanemuhel. White Sands, East Tanna.	1/4+	234.	98	70	C 52. C. 38.	18.	W: R. 20-22. L. 21, 22, seconds + covs M. TL: L. 1-3, covs. C. all uppers + unders C.	W: N T: S. outer prim F.	1/1 beetles + insects.	a late moult.? (1/1/36 not unusual) This bird had 4 flying ticks.
SK 12 R 22	♂	5/10/35. NOON. by arrow in garden land. 150 ASL. fine day. (area 1) Sarki. White Sands East Tanna	1/4	232	95	63	C 55 C. 38.	17.	TL: covs M. crown M nape C. all unders M.	W: S T: F.	3/4 cicada beetles insects.	Also fairly late moult. (1/1/36 see above R21). This specimen had 1 tick only + that a large one.
SK 14 R 28.	♀	9/10/35. 3 PM. sun, clouds + frequent showers. low tree 15 ft semi bush 200 ASL. (area 1) White sands, East Tanna.	1/2-	233	102	72	C 54 C. 39.	18.	NIL	W/T N.	+ 2 cicadas 1 large beetle small beetles.	Has ticks but all the smaller variety.
SK 17 R 32	♂	11/10/35. NOON. showy day. low tree 10 ft. garden land 120 ASL (area 1) Shot by arrow. Sarki. White sands. East Tanna.	O.T. 1/2-	229	96	69	C 49 C 33.	16	NIL	W: N T. V.V.S.	0/0 residue.	Had ticks. (L. test opake) Note Halcyon does not call so much in dull weather. Has small variety of ticks. (White throat buffy unders) (Rufous tinged white collar, full black stripe, full rufous stripe, white chin, rufous unders)
SK 29 R 53	♂	15/10/35. 11.30 AM. dull showy 20 ft up in tree on fresh on at foot of cliffs 0 ASL. (area 1) White sands East Tanna.	1/2+	230	97	65.	C. 53 C. 38.	17.	flanks, belly C	W: V.V.S T: V.S.	3/4 smaller crab, shellgut beetles.	
SK 36 R 63.	♀	17/10/35. 12 AM dull showy in tree 25 ft on cliff edge 40 ASL. at Pitul rookery on Tanakahu (area 5) Tanakahi, East Tanna. Tanna	1/2+	240	95	70	C 53 C 37	18.	NIL	W/T N.	+ large crab + small beetles.	Has ticks. (diam largest ovate 2 mm) (pure white unders X under wings buffy, green back, clear distinct wide white collar)
SK 37 R 72	♂	21/10/35. 9 AM. fine sun. in Banyan tree 20 ft. Semi bush 250 ASL. (area 1) White sands. East Tanna.	O.T. 1/4+	234	96	65	C. 53 C. 37	17	NIL	W: S T: C.	+ beetles (brown) insects	Has ticks. (left test black. 5 mm x 3 mm) (Bluish uppers, buff collar, distinct black band, then indistinct buff, white chin + throat buff unders)
SK 39 R 73	♀	21/10/35. 9.5 AM. fine sun. in low tree 12 ft. semi bush 250 ASL (area 1) Within 50 yds. R 72. White sands. East Tanna.	1/4+	240	96	65	C. 56 C. 42	17	TL: R1, L.1, covs C. nape crown C flanks, neck, chin C.	W: V.V.S. T: C.	1/1 click beetles, beetles	Has ticks (grunish back, buff + white collar, black collar, buffish collar, white unders tinged buff odd places.)
SP. 105 R 78.	U.S	23/10/35. 12 AM. found in hollow in tree with 1 dead fledgling. hollow 6 ft up in tree. semi bush 260 ASL. White sands E. Tanna.		crown quills, dark. above eye rusty band of quills below eye across ear black stripe below that white stripe all upper quills blue black. under quills rusty tinge					BODY			IRIS dark brown BILL black, white extreme tip sharply hooked. LEGS & FEET blackish flesh tinge
SK 42 R 84	♂	31/10/35. Shot 4 PM. in tree 10 ft. semi bush ~~200 ASL~~. 250 ASL (area 1) fine sun. White sands. East Tanna.	O.T. 1/2-	228	100	71	C 52 C 38.	17	NIL	W/T V.S.	1/2 beetles insects.	Has ticks. (both test opake 6 X 3·5 mm enlarged) (Buff collar no white, black collar, white collar tinged buff. white chin, buff unders, blue uppers)
SK 55 R 118	♀	8/11/35. 11 AM. cloud + sun, in banyan soft in open grass paddock, 120 ASL (area 1). near sea cliff. White sands, East Tanna.	1/2-	240	100	70	C 56 C. 39.	17	W: R. 8-10, L. 8-10. nape crown C	W: N. T. V.V.S.	1/2 cicadas + winged insects.	Has ticks. (White unders, buff stripe above eye, black + blue stripe, white collar)
SK 56 R 119.	♂	8/11/35. shot near R 118. within few minutes. Tanepuas. East Tanna.	3/4-	237	101	71	C 53 C. 37.	16.	NIL	W/T N.	1/4 cicada	Has ticks. (Buff unders white chin. buff eye stripe, blue black stripe, buffy white collar)
SK 57 R 120	♀	8/11/35. shot 4 PM. in similar locality to R 118 but ½ a mile further north. East Tanna	O.M.E. 1/2-	245	100	70	C 54 C. 41	17	NIL	W/T N.	1/1 beetles insects crab?	Has ticks. (oviduct very much enlarged) (White unders. buff eye stripe, ~~blue~~ black ~~collar~~ collar stripe, white collar, blackish edging on back.).
SK 58. R 121	♂	9/11/35. 10 AM. showy day. shot in Breadfruit 40 ft. In open grass paddock (not ab 120). 120 ASL. (area 1) Sarki, White sands East Tanna.	O.T. 3/4+	232	100	67	C 54 C 38.	17	NIL	W/T N.	1/1 3 green cicadas.	Has ticks. (both test opake, enl. 8 X 6 mm) (Very buff unders, white chin, buff eye stripe, blue black collar, buff collar).

CONTINUED PAGE 115

HALCYON CHLORIS JULIAE & TANNENSIS (CONT.)

1935

SK&Rout No.	Sex.	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr.	Moult.	Abr	Stomach	Remarks.
SP144 R237.	U.S.	11/12/35. 2PM. nesting found blown down by wind, hurricane in north Malekula. in garden land 200ASL (area 1) White Sands. East Tanna.										Wind at times hurricane force. Hurricane centred in north of group, wind here ENE to NE. Direct to spirit for museum examination. Bald patch on neck, crown possably from wind damage. When birds which nest in hollows like halcyon show a hurricane mortality what must other open nesting birds show probably 100% mortality. IRIS brown. BILL black, extremety pale horn. LEGS & FEET brownish black.
SK123 R266.	♀	18/12/35. 6.AM. odd sprinkles, sun + cloud. semi bush garden land. 10 ASL. West side of island. Coastal strip. (area 6) Anuwa Island.	O.S.E. 3/4 ~~10~~	240	102	71	G. 53 C. 39.	16.5.	NIL	W/T V.S.	0/0 insect remains.	Has ticks. (white unders) (oviduct slightly enlarged)
SK124 R267.	♂	18/12/35. 10.AM. odd sprinkles, sun + cloud. open grass lands low hardwood scrub. N end of island, plateau above Saro tidal lagoon. 100ASL. (area 6) Anuwa Is.	U.T. O.T. 1/2 + ~~10~~	235	97	70	G. 51.5 C. 35.	15.	NIL	W/T N.	3/4 battes	Has ticks. (white unders) (test uneven + R test opake. testenl R. 7X4·25 L 5X3 mm) Called Emay (EMAY) by natives. Rufous breast, no doubt Tannensis.
SK122 R268	♂	18/12/35. 2.PM. showers sun + cloud. dry hardwood scrub average height 20 feet, open type, grass + few shrubs underbrush. In centre of island 60 ASL. (area 6.) Anuwa Is.	O.T. 3/4 ~~10~~	232	100	67	G. 52. C. 35	15.	nape, neck, 0	W/T N.	3/4 battes.	NB. NOTE It has a harsh, hairy type of breast feather, not soft to the touch like the white a julia possably with a feather study under a microscope. (both test opake)
SP152 R283	U.S.	19/12/35. A nesting parent unseen. Nest in hollow limb 15 ft up in voa tree. semi bush garden land. 20 ASL. Anuwa Is.		strange descrepancy in size of brood, 3 larger + a runt, but runt damn vigorous								Direct to spirit for museum examination.
SP155 R291.	U.S.	19/12/35. Parents unseen. Nest things, 2 broods. one of 3 in hollow limb 10 ft. other in limb 14 ft. fold in dry area low hardwood scrub towards centre Anuwa I. 60 ASL	of 2									Direct to spirit for museum examination
R292	♀	19/12/35. 2PM. fine sun. garden lands 20 ASL. North end of island. (area 6) Anuwa Is.	O.S.E. 3/4 ~~10~~	245	99	70	G. 53 C. 39	16.	odd scattered fur on body.	W/T mixed ~~10~~	1/1 crabs, battes.	(pure white breast). (oviduct slightly enlarged. diam largest oocyte 3 mm) (ABR. W/T mixed. outer prim C. but general average S.).
R293	♀	19/12/35. 5.30 PM. ditto above. (area 6) Anuwa Is.	3/4 —	240	102	70	G 53·5 C. 41	16	NIL	W/T S.	0/0 residue	Very similiar to above R. 292. (pure white breast).
SK137 R312	♂	23/12/35. 10 AM. fine sunny. in coconut near mission. garden land, semi bush, 20 ASL. West coast strip. (area 6) Anuwa Is.	O.T. 3/4 ~~10~~	232	99.	68.	G. 51·5 C. 37	16.	W: under covs. 0 ~~flanks~~ chin 0.	W/T N.	1/1 complete large green stick insect (mantis). battes.	(semi buff unders). (R test opake. test enl. 8X6 mm).

1936

SK163 R. 355	♂	31/1/36. 3.PM. wind + rain. in low tree 15 ft. semi bush, ferny underbrush. 150 ASL. Takumpti gully. (area 1) White Sands, East Tanna.	0/0	237	96	67	G. 53 C. 44.	15.	crown 0 chin 0.	W/T N.	1/4 battle remains.	INTERESTING Has tick. Has skish feathers. grunish crown + back, buff + speckled unders, stripes more golden tinge. Possably sub adult of Tannensis. IRIS dark brown. BILL black. Lower M has black back, white horn base + unders. LEGS & FEET light nigger brown, under toes pale, claws black.
SK167 R362.	♀	12/2/36. 9 AM. sun, odd showers in afternoon in tree in open grass paddock 120 ASL. (area 1) White Sands. Tarkiu E. Tanna.	0/0	242	100	70	G 55 C 39.	16.	unders: odd fur scattered.	W: N T: V.V.S.	1/1 wood battes (borer sect)	Has ticks. (White unders, flanks buff tinge, darkish breast marks.) soft parts as R 355. probably young of julia. a good mate to R 355 + another damn thing to mix Halcyon into of further tangle.
R365.	♂	18/2/36. 1.PM. fine sun + cloud. in open grass paddock, 120 ASL. Tarki, (area 1) White Sands. E. Tanna.	O.T. 0/0 +	220	97	68.	G 55 C 37.	16.	all unders 0	W/T N.	1/2 caterpilar battes insects.	Badly shot damaged. Has ticks. Darkish collar (Breast) marks numerous + extensive, even to sides of neck. (buff (gold) collar, black collar, pale buff collar, buff unders) (both test black).
SP176 R368	U.S.	20/2/36. 10 AM fine sun. In open grass paddock 120 ASL. Tarki. area 1 White Sands East Tanna.		direct to spirit during my illness.								buff tinged unders with breast marks. legs + feet brownish black.
177 ~~SP177~~ R369	U.S.	20/2/36. 4PM. ditto above area White Sands. E. Tanna.										pure white unders. blind in R. eye. feet + legs dark greyish black.
SK168 R370	SUB AD U.S.	22/2/36. 8 AM. ~~fine~~ sun + heavy rain shower. semi bush. 50 ASL area 1. Takumpti gully. E. Tanna.		Trial skin on Mayr. system. no measuring or moulting different head cuts, W. prim uncut. sewn up.								Couldnt definatly sex as organs damaged but it is sub. adult. legs nigger brown pale under toes. unders touch buff, has breast marks. WANT. CRITISM. ON. SKIN FOR. FUTURE. IMPROVEMENT.

NESTS. 121

HIRUNDO TAHITICA SUBFUSCA (GOULD)

SOUTHERN NEW HEBRIDES

NATIVE NAMES

East Tanna (area 1) } KOULI KABOU IAHARUNG

Aniwa (area 6) } CUPKABA

1935

SK & ROUT.	SEX	SHOOTING DATA	GON.	TOTAL	W	TAIL	BILL	TR.	MOULT	ABR.	STOMACH
SP123 R196.	U.S.	25/11/35. 2 nestlings, fully fledged found in nest in small cavity in red volcanic rocks. Sevi Ash plain (area 1) East Tanna		Iris dark brown. Bill black, soft gape cream. Legs + feet black.							

1936

SOFT PARTS.

REMARKS

The only place where these birds (which appear to be the same as elsewhere) are in any numbers in this area is on Sevi ash plain especially around these rocks where they nest. No doubt because the only place they can easily get mud is around Sevi lake, the rest of the area being too sandy soil. Possibly 20 pairs would more than cover the rest of area 1 + 20 pairs on this small area of Sevi. Nest is usual mud base placed on flat rock ledge lined with grass pandanus fibres + feathers.

NESTS 125

HYPOTHENIDIA PHILIPPENSIS SWINDELLSI (MATHEWS).

SOUTHERN NEW HEBRIDES

NATIVE NAMES.
East Tanna (area 1.) } KASSOWET.

1935

Sk+Rout No.	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr	Moult	Abr.	Stomach
SK61 R132	♂	12/11/35. 6.AM. bright sun, in native garden 250 ASL. Tanamukel. White Sands. (area 1.) East Tanna	U.T. O.T. 3/4 + ~~307~~	318	139	63	G41. C.33	48	W: L. 20 + secondy. L. Wo. only. crown o (few)	W/T S.	1/4 grubs, ants molluscs.
SK64 R142	♀	13/11/35. 5.30PM. bright sunny. shot amongst pandanus grass flats on West side Sewi. (area 2.) 130 ASL. East Tanna.	3/4 –	280	138	60	G36 C30	44.	back o	W: S T: C.	1/4 black beetles
R2144.	♂	14/12/35. 10 AM. found half dead from hurricane 14/12/35 near houses in native village behind Wesisi 600 ASL. (north border area 1) Wesisi, East Tanna.	U.T. 1/1 ~~307~~	? 322.	⊗	63	G42 C31. D⊗B 11.5 W⊗B 10.	TR. 47 MTC. 50	W: R. 20–21. upper back, nape o. neck M	W/T C ⊗	0/0 few pebbles + black, oily residue, (bad smell).

1936

Sk+Rout No.	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr	Moult	Abr.	Stomach
SK159 R344	JUV. ♂	24/1/36. 4PM. showers + sun. caught by dog in long grass on flats, W. Sewi (area 2) 120 ASL. West Sewi. East Tanna.	1/4	260	45	30	G.35. C.23. D⊗B. 9 W⊗B. 9.	TR. 45 MTC 46	W: all. TL: all. rump, back, M. all uppers (few). breast, conceal unders few scattered.	— —	1/4 volcanic sand shell grit (gizzle?)
SP163 R346	JUV. ♀	28/1/36. 2 PM. rain + wind. dull cloudy. in grass on West side Sewi caught by dog. 120 ASL. West Sewi (area 2) East Tanna.	0/0 +	260	40	33.	G.35. C.23. D⊗B. ⊗ W⊗B ⊗.	TR 47. MTC 46.	W: all. TL: all. upper back M. all unders o x chin C.	=	1/4 volcanic grit + shells.
SK160 R347.	♂	28/1/36. 2.10 PM. rain + wind dull cloudy. shot on grass flats W. Sewi 120 ASL. (area 2) West Sewi. East Tanna.	U.T. O.T. 1/1 – ~~307~~	305	133	58	G 42. C32. D⊗B. 11. W⊗B. 9.	TR. 44 MTC 46.	W: R. 19, 21, 22. covs. seconds o. nape M crown o. all unders o x chin C.	W: S T: F.	1/4 febres, small bulbs + grit.
SP167 R359.	U.S.	1/2/36. 4PM. rain + wind. on grass flats west side Sewi lake. 120 ASL. (area 2.) West Sewi. East Tanna.	(3 fledglings caught various parts of flats).								
SK166 R360	♀	5/2/36. 2 PM. fine sun and sprinkles, garden lands Sulphur Bay valley. (area 1) East Tanna	3/4 –	280	135	63	G36 C 26 D⊗B.10 W⊗B.7.5.	TR. 43.5 MTC 47.5	W: covs o. TL: covs o. lower back crown o upper back, lower nape o. breast neck chin o.	W/T N	3/4 volcanic sand (wet) snail shells. long white worms
SP174 R366	U.S.	16/2/36. 4.PM. fine sun + cloud. In low tangled scrub – W of Sewi lake. 120 ASL. (area 2) East Tanna.	(direct to spirit).								

SOFT PARTS.

area 1. { IRIS crimson. BILL crimson base. slaty horn tip half + central ridge + tip ½ lower M. LEGS & FEET pale drab grey.

REMARKS.

Fairly common in native gardens but very very shy + seldom seen. Has a scent as a dog can flush them always whereas without a dog one would never see them as they fly up or glide away.

This specimen seems unusually large.

(Both test dark grey and unevenly enlarged L test 15 X 12 R. test 10 X 8 mm)

Quite common in this area + not as shy as in garden land area

Natives chopped off wing tips making this specimen useless for skinning. Garden lands would be description of where found, but it may have wandered during blow. Bird very thin but it was kept in captivity 48 hrs. previous to examination.

IRIS hazel. BILL dark reddish brown, LEGS & FEET. pale nugger brown CLAWS greyish horn.
(NB. Does H. phil. have an seis change of colour.?)

soft parts as for R344.

Very very little buff on breast. (possibly parent of R346 but no indication except proximity)

(test unevn + both opake. L test ent 18 X 9.5 R test. 14 X 9.5 mm. R. test blacker than left.)

IRIS light brown BILL bill black brownish extreme tip. legs + feet pale nugger brown claws greyish horn.

Badly shot damaged especially around head.
(IRIS orange with crimson tinge. other soft parts as usual.)

IRIS light yellowish brown. BILL greyish white horn x for dark reddish brown culmenal ridge + touch dark base lower M.
legs + feet pale nugger brown (slight yellowish tinge)

No colour bar on breast.

LALAGE LEUCOPYGIA

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

East Tanna (area 1) } TOWLI TOWLI

Eastern foothills Esaka village area 3 } TAKURE TAKURE.

Eastern foothills Ianemelan village area 3 } KAKORI KAKORI

Anuwa Is (area 6) } TOWLI TOWLI.

1935

S	Sk+Rout.	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr	Moult	Abr.	Stomach
S	SK10 R20.	♂	5/10/35. 9AM fine sun. shot in banyan 40ft. semi bush 250ASL. (area 1) Ianamatangi. White Sands. East Tanna.	U.T. ½+	184	89	81	G. 22 C. 13.	25.	W: seconds + covs. O. crown O all unders O	W/T V.V.S.	+ banyan fruit
S	R26.	U.S. alive ♂ plumage	7/10/35. brought in by native shot by blunt arrow in banyan tree 20ft. semi bush 200ASL. (area 1) White sands East Tanna.	—	~~86~~	86	76	G 22. C 14.	23	TL: R1. L1 covs M. all uppers O all unders O X chin.	W:N T.V.M.	—
	R45	♂	14/10/35. shot 10.AM. in banyan 30ft semi bush. fine sun. 200ASL. (area 1.) White Sands, E. Tanna.	O.T. ½+ ~~10~~	188	87	81	G 21 C. 14.	24.	W: R. ⊗. TL: covs O. rump back M. all unders O	W/T S.	+ banyan fruit.
	R72.	♂	19/10/35. 10.AM. fine sun. shot in banyan 40ft. semi bush 50ASL. (area 1.) Sulphur bay valley. East Tanna	½+ ~~10~~	185	90	83.	G 22 C. 13	24	back M chin O	W:N. T:F.	+ banyan fruit 1 green aphis hon.
S	[135]? SP? R179	U.S.	21/11/35. 8.AM. fine sun. in low tree 12ft above road up Ianemelan ridge, behind village, 900ASL. Eastern foothills (area 3) East Tanna	—	194.	87	80	G 22 C. 13.	26.	TL: covs O. rump back M nape crown O all unders O x neck chin M	W: N T: V.S.	— .
S	SK82 R182	♂ SUB-ADULT.	21/11/35. Shot with above R179. five minutes later. (adult plumaged bird shot at + missed) family party. Low stunted bush, trees average 20ft in height. Ianemelan. Eastern foothills	O.T. O O.	190	87	81.	G. 22 C. 13.	26.	W: covs M. TL: covs. A. rump lower back nape M. upper back crown O. all unders M X chin O	W: N T: V.V.S.	+ cicada, fruit berries, green caterpillar
S	SK99 R215.	♀	29/11/35. 3 PM showy. shot in bush top, average bush 25ft. ~~[illegible]~~ fine sun, fern undergrowth wild hava cel. near camp. Labei plateau 2500ASL. (area 4.) South bentetkts. Tanna.	M. O.E. ¼+ ~~1~~	180	83	75	G. 21.5 C. ~~13~~	25	W: seconds, covs. O. TL: R1, 5, 6; L: 1. covs M. rump M back O all uppers O all unders O X chin.	W/T V.S.	3/4 catpillars fruit.
	SP141. R229	♀	7/12/35. 12-3PM showy. shot in banyan tree, semi bush 250ASL. (area 1) White Sands, East Tanna	½ ~~½~~ ½	190	85	78	G 22 C 14.	25.	W: R.T.F. 6-9, 17; L. 6-9, 17 second A. covs M. TL: R. 2. L all: L covs A. rump, nape M, all upper O. all unders M	W/T V.M.	+ fruit berries black beetles.
S	SP149 R260	♀	18/12/35. 9 AM. odd sprinkles sun + cloud. semi bush hard wood scrub, av. height 20ft. 100ASL N/W side Anuwa. (area 6.) Anuwa Is	3/4 –	173	86	78	G. 22 C. 13.	24.	TL: R1. L1. covs O. rump back M nape crown O all unders O	W:N T: S.	+ fruit + insects
	SP150 R261.	U.S.	18/12/35. 12 AM. ditto above R260. dried to spirit for museum examination (area 6) Anuwa Is.	soft parts as usual (general description top of page)								
	SK125 R279	♀	19/12/35. 10AM. fine sunny dense low hardwood scrub av. height 15ft. dry area. 100ASL. E central part of island. (area 6) Anuwa Is.	½+	180	86	77	G 23 C 14.	24	W. R. 7. L 7. crown O chin O.	W/T mixed.	½ insects fruit seeds.
	SK126 R280	♀	19/12/35. 6.AM-12AM. fine sunny. Island sample from all other island 0-120ASL. (area 6) Anuwa Is.	3/4+	180	89	80	G 21 C. 14.	24	head ⊗ chin O	W/T S.	3/4 beetles insects.
	SP154 R281	♂	19/12/35. 6AM to 12AM. ditto above R280. Anuwa Is.	O.T. O O+	179	87	78	G. 22.5 C. 13.	24	TL: L. 4-6 covs O. rump nape crown O. all unders O (increasing head to tail).	W/T N	3/4 insects fruit seeds.
	SP154 R282	♀	19/12/35. 6AM to 12AM. ditto above R280. Anuwa Is.	O/O	178.	86.	73	G. 21 C. 11.	24.	W: under covs A. up covs O TL: all F. rump C back nape O flanks chin M all unders O	W/T N.	—
	SK134 R308.	♂	21/12/35. 7.AM. fine sun. open grassland low hard wood scrub plateau. N end of island above Efaro lagoon. 100ASL (area 6) Anuwa Is.	3/4	198	90	81	G 25 C 14	26.5	TL. ⊗ NIL	W/T S.	3/4 insects fruit seeds.

SOFT PARTS.

TANNA & ANIWA { IRIS dark brown. BILL black. LEGS + FEET. black, yellowish white pads under toes.

REMARKS.

Very common in White Sand (area 1) almost always in banyan trees always at least a pair in a group of banyans. They chase each other a lot uttering a sharp "Chip". They also have a pretty song + angl pleasing note.

Kept alive overnight then released as unsuitable for skinning. Observed. Bird sleeps with head in long fluffy feathers (white or grey) of rump bar + not under wing. Looks like a ball of fluff (with tail sticking out). Maintains a half crouch position.

Too damaged around head feathers for skin.

Badly shot damaged.

(both test opake)

First insect found in stomach of this species

(test end. 6 X 3·5 mm).

Fairly common is area decreasing slightly with altitude (numbers)

Subadult plumage. left for museum examination.

IRIS dark brown BILL upper M black, lower M. base yellow horn tip black. LEGS + FEET dark slate.

(soft parts as for R.179 except. lower M base white horn)

(both test black + very small).

Quite a number in this area but not as common as White Sands (area 1). Note absence of females in white Sands area, (but this may be misleading as I got nests + eggs there) but it certainly looks as if the male preponderence does not carry to the hills, if it is present in lower areas.

(oviduct was much enlarged but all ooytes were small)

To spirit for museum moult examination

Very common throughtout whole island, especially in the low dry hardwood scrubs (average height 20ft) which cover much of the island, found from sea level to the highest part of the island 120ASL, even odd ones in the mangrove swamps in Efaro tidal lagoon. I believe Lalage is probably a host for Eudynamus the long tailed cuckoo possibly of Chalcites lucidus lucidus which I firmly believe migrates through the area. Hab. to New Zealand as once in Oba (Oct. 1st. 36.). I found an egg in Lalage's nest which by description fitted lucidus lucidus.

This specimen has white feathers moulting in crown (?) Poss. sub adult to full adult moult stage, has slightly buffy breast.

(ABR. W outer prim C inner N: TL moused over 5)

Head badly damaged.

sub. adult plumage, softish yellow gape. (both test opake) } good pair for museum moult examination

sub adult plumage softish yellow gape.

NON-NESTING

137

LIMOSA LAPPONICA BAUERI

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.
Aniwa Is. (Area 6.) } KAR.

1935 (DIFF. B.M. means difference between length of Mandibles)

SK+ROUT.	SEX.	SHOOTING DATA.	GON.	TOTAL	W.	TAIL	BILL	TR.	MOULT.	ABR	STOMACH.
SK143 R318	♀	24/12/35. 10 AM. fine sunny. Shot on wing above white sand. tidal flats on E side Efaro tidal lagoon. (Low tide, slack water) (Area 6.) Aniwa Is.	0/0+	388	212	73.	G 85. C. 82·5. D@B. 10. W@B. 9. DIFF B.M. 3 mm.	TR. 51 MTC 37.	W: R. 5, 24, 25 — L. 4, 24, 25 — under covs M. covs seconds O. TL: RR. L h. covs O. rump, back nape M crown O. all under M X nick chin O. (decreasing from tail to head where abrasion is heavy)	W/T V.S. nick chin V.V.M.	1/4 shell grit tidal mud.
SK144 R319	♀	24/12/35. 10.30 AM. fine sunny. Shot on wing over sand flats SE side Efaro tidal lagoon. low water (rising). (Area 6) Aniwa Is.	1/4	446	230	83.	G. 107. C. 104. D@B. 11·5 W@B. 10. DIFF B.M. 3·5	TR. 555 MTC 40	W: under covs O upper covs M seconds O. TL: Rh, 4, 6, L 4, 6 f covs O rump back M. nape O crown O belly flanks, breast M. nape chin O	W/T N. nape & nick V.M	1/4 small crab remains.

SOFT PARTS.

Aniwa Is. (male). R318.
- IRIS dark brown.
- BILL dark horn, black tip half, paler pinkish horn base.
- LEGS & FEET. black.

R319
- IRIS dark brown.
- BILL pinkish horn all base 1/2 (much paler than R318) tip half both M black horn.
- LEGS + FEET. greyish black, (not as dark as R318).

REMARKS.

Fairly numerous amongst the waders but very shy. Can easily be picked out by its industary in looking for food as it makes short sharp dashes here & there driving its bill into the sand. Occasionally goes up onto high grassy plateau (COAST) at high tide but not often. No doubt as it cannot feed so well on the reef (which fringes it) others do at high tide it has to be busy at low tide. Is not nearly so rowdy as Numenius phaeopus & only numbers about 1 to 3 or 4 of that species on Efaro lagoon.

Very large compared to R318.

approx. Percent of difference. TOT. 15% W 9% TL 14% BG 25% BC 25% D@B. 15% W@B. 11% DIFF B.M. 16% TR 9% MTC 8 1/3%

Average % difference 14·7% larger than R. 318.

NESTS 141

MACROPYGIA RUFFA RUFFA (RAMSAY) (BROWN PHASE)

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

East Tanna area 1. Eastern foothills (area 3) } MAKABOMA. (MRK) pronounce.

1935

SK+ROUT.	SEX	SHOOTING DATA	GON	TOTAL	W.	TAIL.	BILL	TR	MOULT	ABR.	STOMACH.
SK13. R27	♀	9/10/35 9.AM. sun + showers. in small leaved banyan. 20ft semi bush. 250ASL. (area 1) White Sands East Tanna.	1/2+	325	155	170	G 20 C 15.	23.	NIL	W: VS T: VVM.	+ banyan seeds, several pepper vine berries, neckcrop full of banyan berries.
R46.	♀	14/10/35. 8.30AM. fine sun. shot 15ft up in venua tree feeding on fruit (seeds) semi bush 250ASL White Sands. (area 1.) East Tanna.	1/2	320	155	172.	G 20 C. 14.	21.	NIL	W/T N.	1/2 fruit seeds, 1 pepper berry.
R47.	♀ SUB ADULT	14/10/35. 8.40AM. near R.46. within 50yds. ditto above. (area 1) East Tanna.	1/4.	295	147	148.	G 18 C 13.	21.	W: R. 8, 9; L. 8, 9, covs + sec. M. TL: all X. R 3-6. L. 4. covs A rump M. all uppers O X nape crown vent M breast O.	W/T. missed	+ venua seeds + fruit.
SK25 R48.	♂	14/10/35. 10.AM. shot near above 2. R46-7. (area 1.) East Tanna.	U.T. O.T. 1/2	340	159	179	G 20 C 13.	23	NIL	W: N T: VVS.	1/2 seeds of fig + banyan neck crop full of black berries.
R161.	♂	19/11/35. dull cloudy. shot 6.30AM feeding in pendulous tree 15ft. on hillside above river Esaka valley. 200ASL. low range bush forest and bush. Eastern foothills. (area 3) East Tanna.	3/4.	350	159	175	G 22 C 13.	23.	W: R 9. L. 9. upper back M crown O. belly M chin O.	W/T N.	+ 1/1 pendulous seeds.
SP129 R166.	U.S.	19/11/35. 2PM. dull cloudy. Feeding in tree 400-500 ASL. semi bush. Esaka; (area 3) Eastern foothills. East Tanna.	3/4								
SP130 R169.	U.S.	20/11/35. c/Nestling, found by boy. direct to spirit Esaka Tanemalan area. (area 3) Eastern foothills E. Tanna.									
SP131	U.S.	20/11/35 4.30PM. sun + cloud. feeding pendulous tree 15ft. semi bush 600ASL. Tanemalan area (area 3) Eastern foothills East Tanna.									
R190	♀	2/2/11/35. 9.30AM. fine sun. low tree Tanemalan road behind village 1500ASL. Low trees 15-20ft. dense undergrowth on nearly precipitous slopes. (area 3) Eastern foothills Tanna.	O.M.E 1/1+	335	163	177	G. 22 C. 14.	23.	NIL	W/T N.	1/2 fig seeds, berries, seeds(?)
R191.	♂	2/2/11/35. 10AM fine sun. low tree Tanemalan Rd. near above but higher 1800ASL. (area 3) Eastern foothill, E Tanna.	1/2+	340	158	177	G 21 C 14.	23	W. R. 8, 12, 19, 20. L 6, 9. seconds + covs M. TL R. ⊗ L 1. uppers + unders M.	W. VVS T: F.	3/4 berries seeds, stones.

SOFT PARTS.

East Tanna (area 1.) Eastern foothills (area 3). IRIS dark, inner ring (narrow) light crimson outer ring (wide) eyelid red skin edge (narrow). BILL brownish black. LEGS & FEET. crimson to dull red.

REMARKS

c/not very common in this area, at present anyway. This being only the 3rd seen in 2 weeks. c/Neck crop was full of small leaved banyan berries. c/Note larger than northern birds vide my field note 2/10/35. c/Note this specimen has black specklet on breast.

(diam largest oocyte 4 mm)

This is the speckled breasted type the legs are crimson + general tone darker. This species seems to favour the venua or penubre tree for feeding.

(diam largest oocyte 3 mm)

Very streaky around head, (speckled). sides of face + chin. dark breast, legs darker.

The lighter phase without black on breast. Feet are lighter red.

(R test enl. 1/4+ + opake L test enl 1/2+).

slight speckling on breast (or dark marking) This species is very very common in this area at this time of year + nests in these foothills + also on the plateau above. 2000 or so. Its nests being found from 600ft upwards. c/600 or so numerous under 1000ft but very very numerous from that upwards. c/Never nest anywhere in White Sands or West Semi area (areas 1+2) + very very seldom in area 3.

sub adult direct to spirit.

c/Nestling. c/Note intense marking. Evidentally marks on breast denote immaturity as the above spec. R 166 + this show fairly clearly. This nestling was taken from nest on horizontal branch of dark leaved narais tree 30ft from ground, (no vines on this). fairly exposed position 600ASL. semi bush, dense bush margins.

adult direct to spirit to make series with above 2 spirit specimens R. 166+9.

This specimen had a few breast feathers slightly washed with a grey white tinge, like a stain or discoloration, doubt it is distinct enough to call an intermediate between 2 phases. c/Must try for a closer intermediate if possible. The road on this ridge is very interesting as it is the main highway for the birds coming to lower levels to feed on penubre tree. This pass over at an average of 2 a minute (taken over half an hour when 72 birds passed me) morning + evening + at about the rate of 40 an hour, except from 10 till 2 PM when it drops to about 4 an hour. Hawks know this road also.
(diam largest oocyte 5 mm or oviduct very enlarged)

Slightly paler than usual but not even as much intermediate phase as above R190.

(test enl. 9x6 mm very flabby)

NESTS.

145

MACROPYGIA RUFFA RUFFA (RAMSAY) GREY PHASE.

SOUTHER NEW HEBRIDES

NATIVE NAMES.

Eastern foothills area 3 Tanemelan dialect } COMS HITAYING. Note it is unknow in Esaka village which is just across valley (air line 1 mile) rarely odd ones ever reach Tanemelan village.

1935.

SEX & ROUT.	SEX.	SHOOTING DATA.	CON.	TOTAL	W.	TAIL	BILL	TR.	MOULT.	ABR.	STOMACH
SK 76 R171	♀	20/11/35. 3 PM. sunny + cloud. Low tree 15 ft. Tanemelan Rd. ridge behind village. Low tree 15 ft. dense undergrowth precipitous slopes (area 3) margin lasting foothills. 2000 ASL. Tansna	O/O +	325	160	175	G 21 C 13.	22.	W: R. 3, 6, L. 5. covs M. TL: covs A. rump, back M nape crown A. vent flanks belly M neck chin O	W/T V.V.S.	+ remains seeds. hard seeds?
R189.	♀	22/11/35. 8.30 AM. fine sun low tree 10 ft. low forest ao. 20 ft. dense undergrowth precipitous slopes. 1800 ASL. Tanemelan ridge.	O.E. 1/1 +	⊗	156	177	⊗	22.	W: L 6 F covs O. TL: covs M. upper back O. flanks breast + M. vent neck O.	W.F T.C.	+ fruit, berries seeds.

SOFT PARTS.

IRIS inner dark line, crimson outer ring (wide) eyelid red edge margin.
BILL black.
LEGS & FEET. crimson.

REMARKS.

This is an entirely mountain bird on this side of the island anyway. Seldom if ever below 1000 ft. increasing in commoness above that altitude but nowhere very common. (very very shy everywhere different to rufous). Esaka different call to rufous phase, but also uses the rufous call (with a difference) when in their vicinity. Believe it lays a smaller egg + has a similar nest perhaps more scanty. Natives say never mates with rufous phase. Esaka + north of there all extinct ~~valley~~ volcanic crater floor, Tanakahi (Nokea 3, areas 1, 2 + 5) do not know the bird + have no name for it + it is unknown to them. see tables for fuller data.

Head blown to bits, a pity as it was a good sample.

(oviduct enlarged, diam largest ooyte 5 mm).

MYIAGRA CALEDONICA MELANURA (GRAY)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.
East Tanna (area 1.) } QUINQUIN.
Eastern foothills (area 3) } NGITENGITE
Anuiwa Is. (area 6.) } ♂ MANUSAH. ♀ TATANI.

1935

Sk+Rout. No.	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr	Moult	Abr.	Stomach
R7.	♂	2/10/35. 8.30AM. fine sun 12'up in tree, semi bush. 200ASL. White Sands. (area 1.) East Tanna.	1/4-	151	68	64	G21 C13.	18	W.R. ⊗. TL: ⊗.	W/T F.	3/4 insects beetles
R18.	♂	4/10/35 11AM. sun+cloud after rain. low tree semi bush. 250ASL. (area 1.) Sanumakel. White Sands. East Tanna	1/4-	159	72	65	G24 C15	18	NIL	W/T S.	1/2 beetles+ insects.
R39.	♀	11/10/35. 9.AM. sun+showers. in tree 15ft semi bush 200ASL (area 1) White Sands, East Tanna.	1/2	156	78	63	G. 22. C. 12.	17.	NIL	W/T V.S.	3/4 insects beetles.
R40	♂ SUB. AD.	11/10/35. as R.39. (area 1) White Sands East Tanna.	0/0	157	75	63	G. 22 C. 14.	18.	NIL	W/T S.	3/4 insects.
R67.	♂	15/10/35. 2PM. fine sun, shot in dense bush 10ft dense bush+undergrowth. 800ASL. Isakahi (area 5) East Tanna.	1/1+	158	78	65	G22 C14.	18	NIL	W/T N.	1/4 insects beetles.
R68.	♂	15/10/35. 3.30PM. fine sun. in tree 20ft in dense bush ~~+fleny~~ cot. underbrush. 750ASL. Isakahi (area 5) East Tanna.	1/1	160	76	65	G. 22 C. 14.	18.	W: seconds ⊙.	W/T N.	1/4 insects beetles.
R99	♂	5/11/35. 8.AM. fine sun. in banyan tree 40ft semi bush. 250ASL. (area 1) White Sands East Tanna.	1/1.	159	71	65.	G22 C13 WBN. 8.	18.	TL 46.	W/T F.	1/2 insects beetles.
SK81. R181.	♂	21/11/35. 1PM. fine sun. In low dense undergrowth scrub. on plateau edge, 2200ASL. Lakei plateau area 3+4) South bent ohts. Tanna	1/1++	162	76	66.	G23 C. 12. WBN. 9.	17.	NIL	W/T V.V.S.	1/2 minute insects.
SK92 R206	♀	28/11/35. 10.30AM. cloudy stormy dense fern undergrowth on edge low trees 25ft. on fern gully. 2600ASL. Lakei plateau area 4. South bent ohts. East Tanna.	1/1++	153	73	64.	G. 21.5 C. 11. WBN. 8.	17	NIL.	W/T N.	1/2 minute insects.
R207.	♂	28/11/35. 12AM. dull+cloud mist. shot in low tree dense fern undergrowth. under 25ft trees. Lakei plateau, area 4. South bent ohts. Tanna.	1/1	160	76	64	G. 21 C 13. WBN. 9	18	NIL	W/T V.S.	1/4 minute insects.
R253.	♂	17/12/35. 12-3PM. fine sun. semi bush 10ASL. in coconut near beach, west side of island (area 6.) Anuwa Is.	1/1+	160	75	61	G. 24.5 C. 13.5 WBN. 8.5	18.	W: ∞ NIL	W: N T.V.S.	3/4 beetles.
R254	♂	17/12/35. ditto above R253. (area 6.) 20ASL. Anuwa Is.	1/1 1/1+	163	75	63	G. 24 C. 15 WBN. 8	18	NIL	W: N T: S.	1/4 beetles insects.
SP151 R274.	♂	18/12/35. 8.AM. showers sun+cloud. shot in ~~beach~~ coastal scrub near sea ASL. area 6. Anuwa Is.	1/1+	165.	75	65	G. 24.5 C. 14.5 WBN. 9.	18.	crown ⊙	W/T N.	—
SP151. R275	♀	18/12/35. 8.AM. ditto above probably mated. (area 6.) Anuwa I.	1/2	165	73	65	G24 C12 WBN 8.	18	neck ⊙	W/T V.S.	— .
R296.	♀	19/12/35. 12AM. fine sun coastal scrub. 0-20ASL. Area 6. Anuwa Is.	1/2+	165	78	64	G. 22 C. 15 WBN 9.	18	Nil	W/T F.	1/2 insects.
SK129. R297	♂	19/12/35. 4PM. fine sun garden sands near beach 20ft ASL. West side of island coastal flats. area 6. Anuwa Is.	3/4-	163	75	64	G. 24. C. 13.5 WBN. 8.5	18.	NIL	W/T N.	1/4 insects beetles.

CONTINUED ON PAGE 159.

SOFT PARTS.

Janna (areas 1-5) { IRIS dark brown. BILL black, wide+depressed. LEGS & FEET. black under toes lighter.

Anuiwa (area 6.) { IRIS dark brown. BILL black, bluish ridge x @ tip. bluish side patches. LEGS & FEET. black under toes paler.

REMARKS

Male subadult plumage. Fairly common in White Sands area (area 1) but males in full adult plumage (black + white) are not at all common.

Badly shot damaged. Rather larger.

Skin spoilt in skinning. Shot near R40. but not mated possibly related.

♂ Sub. adult plumage.

Full adult ♂ plumage, sheeny black + white. spoilt skinning (test enl 7x5mm)

Full adult ♂ plum. black + white. (test enl 6·5x4·5 mm)

(? plumage) (test enl 7x5 mm.).

full adult ♂ plumage. Common in area, number full adult males greater than at lower altitudes. (test enl. 10x5mm).

Possibly slight differences to White Sands area but very trivial.

(coyte full size no shell.

duplicate of R181 almost exactly.

Similar to Janna. Male full adult plumage / Very common throughout whole island, females may be more rufous under than Janna, but very variable. Great variation in colour of bill. Female sometimes called female quinquin as on Janna, but I believe this is only through contact as an infant would sometimes call a full adult that but an older man never. Also they definitely have language names for them as ♂ MANUSAH. ♀ TATANI (also subadult ♂) (test enl. 8x6mm).

adult ♂ plum. BILL black tip + outer edges rest bluish Male adult plum ratio is very much higher than on Janna, as males in black plumage are more common than females or subad. ♂

(test enl 7x5 mm)

(adult ♂ plum) } Good pair for museum examination as they are mated I believe.
(female plum) }

MYIAGRA CALEDONICA MELANURA (CONT)

1935

Sk+Rout. No.	Sex.	Shooting Data.	Gon	Total	W.	Tail	Bill	Tr.	Moult.	Abr.	Stomach	Remarks.
SK130	♂	20/12/35. 6.30AM. fine sun. grass lands 10ft above sealevel. South end of Anuwa Is. Area 6. Anuwa Is.	1/2+ ~~101~~	161	77	63	G 24 C 14. WBN. 8.5	18.	NIL	W/T O.	1/4 insects.	♂ sub adult plumage. Shot at almost extreme south end of island near Manuwa's place. (test encl. 3.5x2.25 mm).
R309	♂	20/12/35. 12AM. fine sunny. beach scrub near mission, on coastal flat W side of island Area 6. Anuwa Is.	1/4+	158	73	64	G. 24.5 C. 14. WBN. 8.5	17.5	NIL	W.C T.M.	1/2 insects beetles	♂ sub adult plumage.
SK139 R314.	♀	23/12/35. 1PM. fine sunny. shot in beach scrub on E. side of island about sea level. Area 6. Anuwa Is.	1/2+	155	70	63	G. 23 C. 13. W.BN. 8.	19.	TL ⊗ NIL.	W.F T.S.	3/4 minute insects.	tail & legs badly damaged but taken in case no further opportunity.
SK146 R323.	♂	24/12/35. 12.30PM. fine sunny in grassland low hardwood scrub plateau 100 ASL. W side Bgai's lagoon. Area 6. Anuwa Is.	1/1++ ~~101~~	166.	76.	64.	G. 23 C 13. WBN. 8.	17	NIL	W/T V.S.	1/1 beetles insects.	(male adult plum.) (test encl. 9x6mm). deep rufous chin.
SK147 R324	♀	26/12/35. 7AM. fine sunny. beach scrub, casuarinas, W side coastal flats, Area 6. Anuwa Is.	ONE 1/1- ~~101~~	157	74	61.	G 24 C 13. WBN. 8.5.	18	NIL	W/T N.	1/1 insects beetles.	(diam largest ovum 2mm) (oviduct enlarged.).
SK148 R325.	♀	26/12/35. 11.30AM. fine sunny. similar surrounding to abve R324 but locality further north. Area 6. Anuwa Is.	OSE 3/4+	154	72	63	G. 23 C. 14 WBN 8.	17.5.	NIL	W/N. T.VS	1/1 insects beetles.	(oviduct slightly enlarged)

NESTS. 163

MYZOMELA CARDINALIS CARDINALIS (GMELIN)

(NORTH.) + SOUTHERN. NEW HEBRIDES.

NATIVE NAMES.

East Tanna (area 1) } KOUYIMERA.

Anuwa Is. area 6. } WINWINNI

1935

SK + ROUT. No.	SEX	SHOOTING DATA.	GON.	TOTAL.	W.	TL.	BILL	TR.	MOULT.	ABR.	STOMACH.
SK. 1B R.3.	♂	1/8/35. Shot in coconut top 30ft in coconut plantation near sea 20 ASL. Hook centred coast Pentecost Is (Sonorac). North New Hebs	1/1 +	132	70	44	G18 C–	20	NIL	W/T N.	—
R. 4.	♂	29/9/35. Flew into house, captured against window. Handled, liver released. Area 1. Darki. White Sands. E. Tanna.	–	–	73	48	G. 21. C–	22.	back ○	W: S T: V.S.	—
SK3 R6.	♂	1/10/35. 10 AM. sun + cloud. Jutting in small leaved banyan 15 ft. Singing. Semi bush (area 1) 2600 ASL White Sands. E. Tanna	1/1++	139	76	50	G23 C.19.	21.	NIL	W/T V.S.	½ minute insects.
R41.	♂ JUV.	11/10/35. 10.30 AM. sun + showers. Shot in fig tree 20 ft. Semi bush. 75 ASL. Takumpti gully (area 1) White Sands. East Tanna.	0/0 +	136.	66	45	G. 22 C. 18.	21.	unders ○.	W/T N.	½ minute insects.
SK28 R52.	♂	14/10/35. 2 PM. ~~fine~~ sun. In venu a tree 10 ft. garden land. 200 ASL. (area 1) White Sands. East Tanna.	1/1–	142	73	50	G23 C 20.	22.	back nape crown ○ all unders ○.	W/T N.	¼ minute insects.
SK30 R54.	♀	15/10/35. 5 PM. cloudy dull. shot in garden lands. 150 ASL. area 1. White Sands. East Tanna.	1/2–	130	68	45	G20 C16.	21.	NIL	W/T V.S.	0/0 empty.
R69	♂	19/10/35. 10 AM fine sunny. Low tree 10 ft. semi bush. 50 ASL. Sulphur Bay valley. area 1. East Tanna.	3/4 +	137	75	51.	G22 C18.	20.	crown M. breast ○ neck chin M.	W/T V.V.S.	0/0 empty.
R130	♀	21/10/35 8 AM fine sunny day. Feeding in banyan 40 ft. Semi bush 200 ASL. White Sands. East Tanna	3/4 +	130	64.	44.	G21. C18.	20.	W: L. 18. TL: covs. ○. rump back M nape crown ○. flanks breast ○ neck M chin ○	W/T M.	½ true scale (white & black) (ant or ant lion) insects, 1 hard blue seed.
SP133 R174	U.S.	21/11/35. 5.30 AM. shot in coconut. fine sunny day. near camp. semi bush 300 ASL. Esaha Tanumalan area 3 Eastern foothills, Tanna	Direct to spirit for museum examination.								
SK97 R212.	♂	29/11/35. 10.30 AM. showery. shot low tree near camp. Low tree average 20 ft with dense fern underbrush. 2500 ASL. Rubber plantation (area 4) South. Bentshits. Tanna.	3/4 –	149.	75.	53	G23 C. 19.	21.	NIL	W/T S.	¼ minute insects.
SK115 R245	♂	17/12/35. 12 AM fine sunny. low tree semi bush 20 ASL. Coastal flats W side of island area 6. Anuwa Is.	1/1 ++	141.	73	50	G22·5 C18·5	22	NIL	W/T V.V.S.	¼ minute insects.
R.246	♂	17/12/35. 12.30 AM. fine sun. Semi bush 20 ASL. Coastal flats W side Anuwa Is. area 6. Anuwa Is.	1/2 +	145	77	51.	G. 22·5 C. 19.	21·5.	TL: R1. all uppers ○ X nape M. breast chin ○.	W/T S.	1/1 minute insects.
R247.	♀	17/12/35. 12.30 AM. shot within 20 yds of R246. in coconut top. (area 6) Anuwa Is.	3/4.	133.	69.	47.	G. 22 C 18.	20·5.	W: R.6, 7th L. 6, 7th sec. M covs ○. all uppers ○ X nape. all unders ○ (scattered fur)	W/T F.	¾ minute insects.
SP148 R252	♂ SUB AD.	17/12/35. 2-4 PM. garden lands W side Anuwa. Anuwa Is.	0/0.	126	65	39.	G19 C13.	20·5	W. prim A. (increasing outwards). covs M. TL: all. increasing outwards. back ○ increasing to crown A. flanks A. breast M. chin A.	W/T N.	
SP148 R252.	♀ SUB AD.	17/12/35 ditto above R (area 6) Anuwa Is.	0/0	122.	61·5	40	G18 C14.	20.	similar above but slightly more advanced except neck + chin which seem retarded.	W/T N.	
R. 276.	♂	18/12/35. 12-3 PM. sprinkles sun + cloud. Garden land coconuts, etc. General island sample. Area 6. Anuwa Is.	1/1–	145	73	54	G. 22·5 C. 18.	21·5.	W: R.8, 9. L. 8, 9, seconds with prim. covs ○. TL: R. all L. 1. covs M. all uppers + unders ○.	W/T N.	½ insects.

CONTINUED ON PAGE 165

SOFT PARTS.

Tanna. areas 1, 2, 3, 4, 5. { IRIS dark brown; BILL black; LEGS + FEET dark slate under toes yellowish.

Anuwa Is. area 6. { IRIS brown; BILL black; LEGS + FEET blackish slate, under toes pale whitish yellow.

REMARKS.

(Has lice on body) Shot for comparison with southern birds.

Very pugnacious. A professional bird catcher told me he had tried to make an aviary bird of it but it was too pugnacious fighting all other species or its own. Often see it chasing other + much bigger birds hell for leather through the bush. Tried this one with a mirror + it was quite interesting but would like to see its behaviour if not so frightened, even in this case it flew at its reflection with ruffled feathers.

Has varied + pleasing song rather full range of notes not very powerfull.

Juvenile soft gape.

a lot of moult in the red feathers.

first female. one in 5. 20% ratio similar to N.H. or north slightly heigher.

Transition plumage, buff + black unders. Noted white in wing very prominent when resting or in flight. (Test 6 X 3 mm enlarged).

slight touch red feathers on back make me think it a sub adult ♂ on handling.

(peculiar corm or kind of minute sack in amongst ovaries (?) egg laid ?)

soft parts. IRIS dark brown, BILL black, gape yellow, legs blackish, under toes pale yellowish.

common in this area. Identical with White Sands.

common in area, slightly larger than sea level perhaps but very similiar. Percentage of females + or juv ♂ very much heigher than at sea level. Feeds a lot on the flowers of of a red flowering tree (acacia ? We call it + I believe it is called the royal flower of Tahiti.) which is about the commonest tree in the area.

Very very common throughout the whole island in all types of country: The female ratio is very much heigher than on most islands.

(test enl. 7·5 X 6 mm).

(Test. very flat + flabby)

Direct to spirit to show moult sequence.
(gape yellow, base half lower Mandible pale horn. legs black under toes pale yellow.

14/1/36. (Note. These may be a family if so not advanced female in regard to my notes of females appearing to breed young.)

male adult plumage.

MYZOMELA CARDINALIS CARDINALIS (CONT).

1935

Sk+Rout No.	Sex.	Shooting Data	Gon.	Total	W	Tail	Bill	Tr.	Moult	ABR	Stomach.	Remarks
R277.	♂ JUV.	18/12/35. ~~sprinkl~~ 12-3PM sprinkles sun+cloud. garden lands coconuts etc. general island sample 0-120' ASL. (area 6) Aniwa Is.	0/0+	139	70	45	C. 21 C 16.5.	21.5.	W: under covs A. TL: all F. all uppers O x upper back C. all unders O.	W/T N	¼ insects	soft yellowish gape.
R278.	♀ SUB AD?	18/12/35. 12-3PM. ditto c. bove. R276-7. area 6. Aniwa Is.	1/2.	136	66	45	C. 21 C 18.	19.5.	W: R.14 L.14 seconds covs O. TL: covs O. all uppers + unders O.	W/T N.	½ insects.	soft gape yellowish.
✓ SP156 R295.	♂ SUB AD.	19/12/35 4PM fine ~~sun~~. garden lands. (area 6.) Aniwa Is.	–	141	73	51	C 21 C 17.	21.	chin M.	W/T N.		soft yellowish gape. much red on back for age. Incrusting colours back breast + vent
SK138 R313.	♀	23/12/35. 12AM. fine sunny. low tide, open hardwood scrub area average trees 25ft. 40ASL. area 6. Aniwa Is.	O.E. 3/4 – ~~101~~	125.	66	44	C 21 C 18.	20.	W: L.12. TL: covs M. upper back, nape crown O. all unders O (bursa called.	W: N T.V.S.	½ insects.	(oviduct enlarged) ? very young.
SK140 R 315	♂ JUV.	23/12/35. 9AM. fine sun in coconut tree near beach. W coastal flats at sea level. area 6. garden lands semi bush. Aniwa Island.	0/0.	138	73	51	C. 21.5 C. 16.	21.	chin M.	W/T N.	½ minute insects.	gape soft yellow)
R316.	♀.	23/12/35. 9.30AM. fine sun. in coconut top. 30ft near beach, semi bush garden lands. 10ASL. Coastal flats W side of island area 6. (near R315) Aniwa Is.	1/1+ ~~101~~	136.	67.	45.	C. 21 C. 17.	19.	W: R.6; L 6,7. seconds M covs O. TL: R_1^F, L_1^F covs M. rump back M. nape crown O. sent flank belly breast M. neck chin O.	W/T V.S.	¼ minute insects.	Juv? has soft yellow gape. diam largest oocyte 3mm.) A most strange case, has soft gape of juvenile also large moult yet is definitely in advanced breeding. Does the higher ♀ ratio on Aniwa bring them into breeding earlier or does such an early breeding ♀ for this higher ratio? Or is it that the general case of higher male ratio has caused them to become a ~~the~~ earlier breeding race + this is more apparent here as there are more females.

NON BREEDING

175

NUMENIUS PHŒPUS (LINNÉ).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

TANNA EAST area 1+2. } KANG (KRNG).

ANIWA Is. area 6. } KAR. (KRR).

1935.

Sk+Rout No.	Sex	Shooting Data	Gon.	Total.	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach.
SK133 R307	♂	21/12/35. 8 AM. fine sunny on mudflats on W side Eparo tidal Lagoon low tide falling almost dlsch. area Aniwa Is.	1/4	442	235	95	G 87 C 82·5. D@B 9·5 W@B 12.	TR 62 NTC. 42.	W: R. 1, 2, 17, 19, 22, 25. covts. L: 1, 2, 3, 19E, 19, 20, 23 sec. M TL: R 4-6, L 4-6 und covts ♀ rump M, back C nape crown ♀ vertect M. decreasing to chin ♀	W/T mixed ♂♀	½ crabs shell gut.

REMARKS.

about the commonest of the large waders in Eparo lagoon, about 150 to 200 present when I was there, but very wary & impossible to get near in open but easy among the mangroves towards the head (S end) of lagoon. Very noisy bird on wing. Only shot one as sample of what present. also frequents ~~top~~ top around Lisaie. I also found around Sea & fresh water lake on Tanna but almost impossible to shoot in that open bare area. No doubt also frequents Tanna coast line but haven't actually seen it.

SOFT PARTS.

ANIWA Is (male) { IRIS · dark brown. BILL upper M. black tip brownish black base. lower M. tip ½ black base half pale horn pinkish tinge. LEGS & FEET. pale slatey bluish grey.

NESTS. 181

PETROICA MULTICOLOR SIMILIS (GRAY)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

East Tanna area 1 } IANERVANURVAROVARO

Eastern foothills area 3. Esaka dialect } BULEN BULEN.

Eastern foothills (area 3.) Janemelan } GOOTGOOT.

1935.

SK+Rout No.	Sex	Shooting Data.	Gon.	Total	W.	T.	L.	Bill	Tr	Moult	Abr.	Stomach
SK 7 R14	♂	4/10/35 10 A.M. fine sunny. odd cloud. singing in a low tree in semi brush. 200 ASL. behind Janemelchel village. (area 1) White sands. East Tanna.	1/1+	114.	68	46		C 15 C. 9	18.	W:R ® TL: ® NIL	W:VS TL:N.	1/2 minute insects 1 black beetle.
SP103 R57	♂	16/10/35. 2 P.M. dully + showery. shot in low brush ~~under trees, semi open on the from~~ (area 5) ~~semi brush in gully low top of slope sticking~~ 800 ASL. Inakahi East Tanna.	1/1-	114.	62	45		C. 17 C. 11.	19.	W.L. ® NIL	W/T N.	—
SK 31. R58	? U.S. SUB ADULT	16/10/35. Dull showery 1 P.M. shot in low bush. In dense forest gully, dense ~~under~~ bush under 30-80 ft trees. Dense bush. (area 5) Inakahi 900 ASL. East Tanna.		109	60	42		C 16. C. 9.5	19.	Nil	W/T N.	1/4 minute insects.
SK 32. R59	♂	16/10/35. a moment or two before R56. Ditto above. 900 ASL. Area 5. Inakahi. East Tanna.	1/2-	122.	64	44.		C 16 C 11.	19	Nil	W/T S.	1/4 bettles insects.
SK 70 R156	♂	19/11/35. 9 A.M. dull cloudy. Esaka valley, deep steep sided gully covered low bush 20 ft bettlebuse fern undubrush. hills rise to 2000 ft + more. 1000 ASL. Eastern foothills, Tanna	1/1	118	63	46.		C. 16 C. 10.	19	Nil	W/T C.	1/4 bettles insects.
SK 71 R157	♀	19/11/35. shot arft above within 3 minutes showed great distress Esaka valley 1000 ASL. area 3. Eastern foothills Tanna	3/4-	117	60	40		C. 16 C. 10.	19.	Nil	W:F T: S	1/2 bettles insects
SK 73 R159	♂	19/11/35. 11 A.M. dull cloudy. shot across valley from above hair dense fern under bush under 20 ft trees. 1200 ASL. Esaka valley area 3. Eastern foothills Tanna.	1/1+	128	68	47		C. 17 C 11.	20	Nil	W/T V.S.	1/4 insects bettles.
SK 74. R163	? ♀	19/11/35. shot with R 159. showed great distress. ditto above. area 3. Eastern foothills Tanna.	1/1++ ?	122	61	44		C. 17 C 10.	19.	Nil	W/T V.S.	3/4 grub, bettles insects.
SP127 R164	U.S.	19/11/35. 4.30 P.M. dull cloudy. similar locality to above in parallel valley 800 ASL. Esaka (north) area 3. Eastern foothills. Tanna	—	113.	60	42		C. 16 C 10.	19	Nil	W/T VVS.	—.
SK 79 R176	♂	21/11/35. 12 A.M. showers sun + cloud. shot in low scrub 5 ft in a deep gully dense fern cut under low trees. in valley 800 ft ASL. ~~behind Esaka~~ area 3. Eastern foothills. Tanna.	3/4+	119	63	44		C. 16 C. 10.	18	Nil	W/T M.	1/4 insects bettles black ant.
SK 80 R177	♂	21/11/35. 12.30 P.M. within 150 yds of above R176. similar surroundings. 900 ASL. area 3. Esaka (north) valley. Eastern foothills Tanna.	1/1	115	61	43		C 16 C 10.	19.	W: L.B.?	W/T C.	1/4 insects bettles.
SP134 R178.	♀	22/11/35. 11 A.M. low bush 4 ft in dense fern + wild kava, underbush a palm low trees on small plateau Janemelan ridge. 1850 ASL area. 3. Eastern foothills, Tanna.	1/2	116	65	44.		C 16 C 10.	⊗	Nil	W/T F.	—
SP137 R188.	♂	22/11/35. 10 A.M. fine sun, dense underbush ferns ect. deep steep valley 800 ASL. Janemelan. Area 3. Eastern foothills Tanna.	1/1+	123	65	44		C. 16 C 10	20	Nil	W/T V.S.	—
SP138 R199	U.S.	28/11/35. 10 A.M. dull cloudy. Nesting found in gully area 4. Labri plateau South Bent. ckts Tanna.										
SP139 R205	U.S.	28/11/35. 10 A.M. dull cloudy. shot blue fern gully under low trees 20 ft. Nest not found. A mated pair pos. I believe. 2700 ASL.		118	67	46		C. 16 C 10.5	20	Nil	W/T C.	
SP139 R205	U.S.	Labri plateau (area 4) South Bent. ckts Tanna.		119	65	46		C. 16 C 10.	18	Nil	W:S T.C.	

CONTINUED ON PAGE 183

SOFT PARTS.

IRIS dark brown.
BILL black, soft yellowish gape
LEGS mygar brown.
FEET ditto under toes yellow.

REMARKS.

This was the second ♂ petroica seen in the area, c16 females so far. It has at least 2 weeks but pretty songs + a faint sharp chip chip call, one song is a trill ending in a quaro + one running up the scale, to which it will often answer when mimicked. This bird + the other I saw seldom (or only) went above 15 ft. favouring a height of 6 to 12 ft. Shy + silent except at times it gets a spurt + calls for 10 or 15 minutes then goes silent for an hour or so.

Head badly damaged.
Has lice.
Iris dark brown almost black. Bill black softish yellow gape. legs ~~dark~~ mygar brown, feet ditto under toes yellowish.

Below female poss subadult. shot with R 57. probably mated or paired. nest not found. ♂ Male R 57. shot first then this bird appeared + seemed very distressed + flew about a great deal uttering plaintive chip chep - rather badly damaged.

(Had a peculiar single large corn or sack, which may have been ovary at most 1/4 - not the adrenal which was present.)

Shot with R 56. possably mated, possably parent + young, if so shows an unusually long parentage or a very wide breeding season

Adult plumage. This valley is at the foot of hills rising to 2000 ft + more very steeply, many landslides about, densly clotted with a low scrub here + there bits of 20 ft or so but mostly 10 or 15 ft ~~with few~~ many tree ferns, patches cane grass ect, underbush is very dense, ferns, stat ferns, odd pandanus, wild kava ect. There is a river with a few ~~trees~~ small ~~bits~~ barris ~~at the foot of hill~~ bottom of the valley but no appreciable flat on either side (test enl. 8 x 5 mm). Odd small flats on steep faces but small in area. Petroica common in this area.
subadult plumage.

Adult plumage. Shot across the valley from above 2 (R 153 ♂) with R 155 (with which I am sure it was mated) right along side a completed nest, no eggs, placed in a small upright fork of a single stem shrub, 4 ft from ground, composed of moss ect. typical Pet. nest (See SP N. XVII). The shrub was a single stem simple upright forked (two uprights only) under 20 ft trees with dense ferns, stat + tree fern underbush. Except for general moss colouring no concealment was noticeably attempted. Nest very large bare giving impression of a meton last year foundations but this is not so as it is common to find big bases in Pet. nests + they are all fresh work. Don't think nests lasting 12 months
(test enl. 8 x 7.5 mm)

Adult plumage, grey chin of ♀ as R 178.
(soft gape)
(sex organs badly damaged but am almost sure it is ♀ as I found what looked like an very enlarged oviduct + a lot of fluid in abdominal cavity which appeared egg y.

sub adult plumage. Direct to spirit for museum examination.
(soft gape)

full adult plumage. Shot on hillside of gully. Has very dirty tail + vent.
NB Has a greyish chin shot with red but is ♂. (soft gape)
(test enl. 5.5 x 4.5 mm).

full adult plumage. This specimen + the 2 above (R 176 + 164) were all got in a small but deep parrallel valley to what I call Esaka valley, to the north only a narrow ridge seperating them.
(soft gape yellow).
(test enl. 6 x 5 mm).

full adult plumage soft gape. Note chin is greyish not black, ? denotes female. Janemelan ridge rises very steeply from old volcanic crater floor to over 2000 ft + is only a razor back a few feet wide in places. with almost precipitous sides falling to 200 ft on the south side + 400 on the north side. Landslides are very common. It is densly clotted in low bush cane grass + bits 10 to 15 ft, in places 20-30 ft, odd flat shelves ect. as on this one, + a pair of bird ~~seen~~ were seen but only one shot. This was at about the 1800 ft level.

Wing damaged direct to spirit for museum examination + comparison

Direct to spirit for museum examination. Goes with S.P.N. XX. Found in dense underbush on horizontal branch, fallen over a narrow storm channel 2500 ASL. Labri plateau. South Bent ckt.
Noted the birds had built a dumpier nest than usual as it was not in a fork but placed on a wide limb. Also there was a very broad leaved plant growing near + the birds had built so a broad leaf completely sheltered the nest even actually touched it. Eggs, a setting bird or the gen. nest would well protected).
Direct to spirit for museum examination, a good pair shot together 2700 ft ASL. Nest not found but SP N XX was found half a mile lower down the same gully, but these were not the parents of that nest as they were seen feeding the young, both parents make more frequently I think) later than these were shot.
One male adult plumage, one ♀ (?) sub adult plumage but this may be ♂.
Note wing patch has brownish tinge as in sub adult R 164 which was a flat brunch. (see page 184).
A good pair for museum study

PETROICA MULTICOLOR SIMILIS (CONT)

SK+ROUT.No	SEX	SHOOTING DATA	GON	TOTAL	W	TAIL	BILL	TR.	MOULT	ABR	STOMACH	REMARKS.
R208.	♂	28/11/35. 2 P.M. dull cloudy. dense fuzzy undubrush under 25 ft trees 2300 ASL. Area 4. Rabi plateau. South bent shts. Tanna	3/4+	124	62	44	G16 C10.	20	Ø.	Ø	1/2 insects ants.	full adult plumage. Has greyish tinged chin to appreciable extent. Very badly shot damaged. (testes 7 x 5 mm).
SK95 R209.	♂	28/11/35. 2.45 P.M. dull cloudy closed mists. similar above R208 but 2500 ASL. Labi plateau area 4. South bent shts. Tanna.	1/1+	119	67	47	G16 C10.	19	NIL	W/T S.	1/1 insects.	full adult plumage. slight greyish tinge on chin. (testes 8 x 5 mm).

NON-BREEDING.

189

PLUVIALIS DOMINICUS FULVUS (GMELIN).

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

Tanna (Area 1) } UAR (W'OAR).

1935

Sk+Rout No	Sex	Shooting Data.	Gon	Total	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach.	Remarks.
R74	♂	21/10/35. 3 A.M. fine sum. on bare ash plain at Lake edge. 120 ASL. Sewi Lake. (Area 1) E Tanna	0/0+	250	172	64	G 31. C 24	49	W.L. ®. Nil	W/T N.	¼ small fish, + beetles, volcanic ash.	very common in area, around lakes edge + on grass on W side. Also common along the black rocks around the coast line but not in such big flocks as around Sewi Lake. Typical winter plumage. This bird very fat, having a great deal of stomach fat.
R75.	♂	22/10/35. 9-11 A.M. fine sunny shot on grass flats on W side Sewi lake 120 ASL. (Area 2) West Sewi. East Tanna.	0/0	260	170	60	G 33 C 25	46	Nil	W: C T: F.	+ small insects, lava of dragon flys.	hoslice. Typical, perhaps slightly more golden on throat than usual. Badly shot damaged.
R76.	♂	22/10/35. 9-11 A.M. 120 ASL. ditto above (R75). West Sewi (Area 2) East Tanna.	¼-	252	172	63	G. 30 C. 24.	43	upper back, nape crown 0. all unders 0.	W: F T: G.	+ worms, lava of insects (white grubs?)	
SK59 R123.	♂	21/11/35. 9 A.M. fine sun. At water edge E side of Sewi Lake. (Area 1.) Sewi. 120 ASL. East Tanna.	O.T. 0/0+ ~~OT~~	254	170	61	G 28 C 23	44	rump, back, nape 0 belly, flanks 0.	W/T N.	+ dragon fly ~~larvæ, small~~ butts.	Very much white unders. golden washed throat. (L test black)
SK60 R124.	♂	11/11/35. 10 A.M. fine sun. shot on grass flats W side Sewi lake. Area 2. West Sewi. 130 ASL. East Tanna	¼-	260	175	65.	G. 30 C. 25	46.	crown odd breast 0.	W/T V.S.	½ dragon fly lava, small butts.	More buffy under golden washed throat, almost barred breast. (hoslice)
R125	♂	11/11/35. 10 AM. ditto above (R124) not of about ~~[illegible]~~ 100 or more. Area 2. West Sewi 130 ASL. East Tanna.	O.T. 0/0+	255	172	65.	G. 30 C. 24	46.	Nil	W/T N.	+ dragon fly larvæ, small butts, one whit grub.	Not so white under as R123 + almost no gold on throat. (both test black)
R126	♀	11/11/35. 10.30 A.M. near R.124+5 but on its own about 100 yds away. Area 2. West Sewi East Tanna.	0/0+	250	167	63	G 29 C 25.	44.	upper back nape crown 0	W/T V.S.	½ minute butts gravel etc.	Similar to R125.
R127	♀	11/11/35. 5 P.M. fine sunny. Shot in open grass paddock near sea cliff edge 120 ASL. Tarki (Area 1) White Sands. East Tanna	¼-	250	170	61	G 30 C 24.	50	upper 0 (scattered few)	W/T V.V.S.	¼ small butts insects.	hoslice. Similar to R124 but having not so distinct.
R.149	♂	15/11/35. 2 P.M. fine sunny. Shot water edge E side Sewi lake 120 ASL (Area 1). East Tanna.	U.T. ¼- ~~OT~~	256	167	60	G. 31 C. 24.	45.	Nil	W/T VVS.	?	uneven testes. (L test enlarged only ¼. R test only 0/0+).
R150.	♂	15/11/35. ditto above. same shot. Area 1 East Tanna.	U.T. ¼- ~~OT~~	250	169	60	G 31 C 24.	45.	breast 0.	W/T N.	+ beetles insects sand.	(Uneven testes L test enl ¼ R test 0/0+)
R301.	♂	20/12/35. 8-11 AM. fine sun. on bare rif top. E side of island. low tide. (Area 6) Aniwa Is.	U.T. 0/0+	258	172	62	G 31 C 24.	TR. 45 MTC. 31.	W: R. Q. covs 0: L. 4, 5f. TL: R. 2. crown 0 chin 0.	W/T S.	¼ crab or grit.	Very common all over island rifs + on grass flats inland also large numbers on flats in Ejaro tidal lagoon. Saw it flying from Tanna to Aniwa + the other way too, well out to sea between the islands. (uneven test. R test enl 0/0 L test ¼-)
R302.	♂	20/12/35. ditto above. area 6. Aniwa Is.	O.T. 0/0	250	161	56	G 30 C 26.	TR. 44 MTC. 32.5	W: R. 1, 2f. L: ditto, covs 0. TL: R. 2, 5, L. 5. covs 0. rump, back 0. nape crown 0. vent belly flanks 0.	W/T N.	½ crab or grit.	(both test opake)

SOFT PARTS.
IRIS. dark brown.
BILL. black.
LEGS. light slate.
FEET. black, or darker slate than legs.

BREEDING 199

PTILINOPUS TANNENSIS (LATHAM)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

Area 3. Eastern foothills } Esakor + Tanumlan. TAMAKUM.

1935.

SK+ROUT.No.	SEX	SHOOTING DATA	GON.	TOTAL	W.	TAIL	BILL	TR.	MOULT	ABR.	STOMACH.
SK 38. R 70.	♂	18/10/35. 5PM dull showery. shot in banyan tree 30 ft. semi bush, Samaria 350 ASL. area 3. Eastern foothills. Janna.	UT. ½+	285	154	87	G32 C18.	22.	W: R. 2, 9, 14, : L: 2, 9, 14. covs M. TL: R.1. neck crown O all unders O	W: N. T: V.S	¼ banyan fruit, crop full.
R162	♂	19/11/35. 4 P.M. dull cloudy. shot 20 ft in tree, semi bush 300 ASL. Esaka Tanumlan district (area 3) Eastern foothills Janna.	3/4.	285	158	87	G 29 C.19.	28.	W: R.3, L. 3. TL: L. 1. rump O	W/T V.V.S.	½ red banyan berries.
SK 85 R185	♂	22/11/35 8 AM fine sun. In banyan tree 30 ft. semi bush. 4-600 ASL. Esaka Tanumlan district Eastern foothills (area 3) Janna	1/2.	285	162	87	G35 C20.	25.	W: R. 5, 6, 7, L. 1, 6, 7 covs. O. TL: L. 4 upper covs M. all uppers O. all unders C.	W/T N.	¼ banyan fruit.
SK 86 R186.	♂	22/11/35. 8.30 AM. fine sun. in banyan tree 20 ft semi bush, 4-600 ASL. Esaka Tanumlan district Eastern foothills (area 3) Janna.	1/1-	298	165	88.	G32 C20.	29	W: R. 6, L. 6, covs O. TL: R 1, 7. L. 1. upper covs O. all uppers O (increasing towards rump). ~~throat~~, blackish vent belly M. breast chin O	W: N T: V.S.	1/1 crop full banyan fruit. + 8 PM banyan fruit
SP 136 R187	U.S.	22/11/35. 9. PM. Ditto above. (Area 3) Janna	Direct to spirit for museum examination.								

SOFT PARTS

IRIS pale yellowish, bare skin patch below eye dark grey

BILL bluish grey / green tinge / a gator band before dark tip. / Bluish horn black tip /

LEGS & FEET. dark red.

REMARKS.

Wing taken as different to northern bird, less yellow + has white shoulder spots.

(uncern test L test end 9 x 7. R test end 6 x 6 mm)

Common in this area but found only between 200 - 800 ASL as far as I can see. Does not appear across in the same levels in White Sands or Imakahi area as far as I can make out to date. No further about this. + does not extend up into the hills at all as far as I can make out. seems very restricted in area. Great variation in size noticeable in field, (in weights)

Bill bluish horn black tip upper mandible.

(test shot damaged)

PTILOPUS GREYI (BONAP).

SOUTHERN NEW HEBRIDES

NATIVE NAMES.
East Tanna (area 1.) } BUNUA
Aniwa Is. (area 6.) } FAYGUGU.

1935.

SK + ROUT. No.	SEX	SHOOTING DATA.	GON	TOTAL.	W	TAIL	BILL	TR.	MOULT.	ABR.	STOMACH.
SK 2. R5	♀	30/9/35. 12. NOON. fine sun. In banyan tree 30'. Semi bush. 500 ASL. Lonelaboc Weisisi, Ridge area 1. East Tanna.	3/4.	—	127	78	G20 C14.	(?) 19.	TL: under covs o. rump nape o. vent o.	W/T F.	½ small laved banyan fruit.
R23.	♀	5/10/35. 9.30 AM. fine sun. Shot on nest 20ft up in banyan tree. 250 ASL. Semi bush (area 1) Tanamalangi, White Sands East Tanna.	1/1+++ ~~(0)~~	232	128	77	G23 C14.	(?) 19.	scattered fur on body.	W/T V.S.	3/4 banyan fruit.
R42.	♂	12/10/35. 9 AM. fine sun. Banyan tree 30ft semi bush, (area 1) 200 ASL. Tanamuhel, White Sands East Tanna.	1/1–	227	127	81.	G23 C15.	? 24.	W: under covs o. TL: R.1, L.1. covs. o. rump o. upper back M. nape o. all unders o.	W/T N.	3/4 banyan fruit.
R60.	♂	16/10/35. 11 AM dull cloudy. low tree 15ft. dense bush. under big trees 60ft. in rugged country. 800 ASL. Inakahi, (area 5.) East Tanna.	U.T. 3/4. ~~(0)~~	? 249.	125	81	G25 C15.	24	W: R.8. L.8. covs + seconds o. upper back M. all unders o.	W/T S.	3/4 pemuke seeds.
R61.	♀	16/10/35. 12-3 P.M. dull cloudy. Shot in garden lands 200 ASL White Sands. area 1. East Tanna.	1/2+ ~~(0)~~	235.	125	77	G.23 C14.	23	NIL	W/T S.	½ banyan fruits.
SK 116 R248.	♂	17/12/35. 1 PM fine sunny. garden lands on coastal flat W side of island 10ft ASL. (area 6) Aniwa Is.	U.T. 1/2+ ~~(0)~~	237	127	76	G 24 C. 13.	24.5	NIL	W/T N.	neck crop small figs. stm ½ figs.
R269.	♂ SUB AD.	18/12/35. 6-12 AM. sprinkles sun + cloud. semi bush garden lands 0-100 ASL. general island sample. area 6. Aniwa Is.	0/0+	⊗	120	72	G19 C12.5	22.	W. under covs o. flanks M breast c.	W/T N.	+ large fruit seeds, fruit berries.
R270.	♀	18/12/35. 6-12 AM. ditto above. general island sample. (area 6) Aniwa Is.	O.E. 1/1+ ~~(0)~~	230	125	77	G20 C12.	23.	W: L. 5. nape crown o	W/T N.	½ fruits.
R271.	♀	18/12/35. 6-12 AM. ditto above. general island sample (area 6) Aniwa Is.	1/2+	222	125.	76	G22 C12.	23.	NIL	W/T N.	+ fruit of yellow banyan.
SP153 R287.	♀ SUB AD.	19/12/35. 6-10 AM fine sun. general island sample. 0-50-100 ASL. area 6. all types country. Aniwa Is.	0/0+	206	121.	70	G23 C14.	22.	W: R.9, L.9 seconds covs o. TL: covs M. all uppers o vent flanks breast c. nape chin o.	W/T N.	—
SP153 R288	♂	19/12/35. ditto above. (area 6.) Aniwa Is.	1/4+	228	128	76. ⊗	G26 C. 12.5.	22.5.	W: R.7. seconds M covs o. TL. ⊗. upper back c nape crown o. all unders o ⊗	W/T S.	—
SP153 R289.	♂	19/12/35. ditto above. area 6. Aniwa Is.	1/4+	234	127	78	G 24 C.14.	24	W: L13, 14. odd scattered body.	W/T N.	
SP153 R290	U.S. SUB ADULT	19/12/35. ditto above. (area 6) Aniwa Is.	?	213.	120	71.	G 24 C16.	22	odd scattered body.	W/T N.	—
R303	♂ SUB AD.	20/12/35. 10 AM. fine sun. low dense hardwood scrub south end of island 120 ASL. (area 6) Aniwa Is.	0/0+	231	126	75	G24 C13.5	23.	W: R.8. L.8 covs o.	W/T N.	¼ fruit seeds.

SOFT PARTS.

TANNA (area 1) { IRIS reddish tinge light brown. BILL olive green, large nostril. LEGS + FEET. crimson.

ANIWA (area 6) { IRIS reddish light brown, eyelids yellowish down edged. BILL pale green. LEGS + FEET. light red.

REMARKS.

Shot at village above Weisisi which is a bay on the E side of Tanna on the extreme north border of area 1. The hills rise very steeply from the shore to about 700 feet. Weisisi is a lightly different type country to White Sands. Having a denser firmer under brush + a damper type of soil, but many coconuts + garden lands or semi bush type country with more under brush.

Bird huge on nest. Usual scanty nest of few twigs on horizontal branch. Full sized egg with hard shell + all ready for laying found in oviduct. egg kept for specimen (SPEI.) Not very common in this area.

(hard shelled egg in oviduct measuring 34 X 24 mm).

Legs damaged so tarsus measurement may be doubted, I think it is correct but will check up on later measurements.

Had flying ticks. Also had a peculiar odour, rather objectionable. Fairly common in this area.

(uneven test. L enl. 13 X 7 R test enl. 10 X 8 mm).

Badly damaged.

(diam largest oocyte 3 mm).

Specimen very fat. Very very common throughout the whole island in all types of country except Epiaro tidal lagoon + even there it appears along the western margins. On handling it appears a smaller bird than Tanna but measurements are as large. There is a weight difference I think.

(test enl. 8 X 4.5 mm. R test slightly smaller).

There is a great deal of variation in amount of yellow in wing of this species.

(oviduct enlarged. diam largest oocyte 7 mm).

for wing variation unders badly damaged

all four to spirit to show wing, breast + chin variation. a good series just about covers all variation noticed.

Sub adult plumage. first few feathers of purple appearing on crown.

BREEDS. 207

PUFFINUS LHERMINIERI NUGAX (MATHEWS)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

~~Eastern Tanna (west)~~
Eastern foothills area 3. South bent cpts area 4. } TICKAREKARK.

1935

Sk+Rout No	Sex	Shooting Data	Gon	Total	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach
Sk.77 R172	♀	20/11/35. 12 AM. found in 6ft burrow in fern patch, 1500 ASL in deep low gully, on about precipitous hills rising to 2900 ft, many empty shoots. Moderate edge. Eastern foothills area 3. Tanna. (Peaks).	1/2	320	212	80	G: 49. C: 29. RNTT: 22. DOB: 9 LD: 7 WOB: 11.	TR. 42 MTC. 45.	Nil	W:N. T:S.	long crop: slime only. STM barnacles ? small black crabs
SK102 R220	♀	30/1/35. 9-12 AM. taken in 6ft burrow on top of ridge Tokas Cniira, 3200 ASL, highest point of Tanna. Dull hazy weather cloud, vapour down on hills, (area 4). South bent cpts. Tanna	1/2 +	344.	220	83.	G. 45. C. 29. RNTT: 24. DOB: 10 LD. 6 WOB: 10.	TR. 43 MTC. 47.	Nil	W. V.V.S. T: V.S	long crop, green skins STM. black shells. (barnacles)
SK103. R221.	♂	30/1/35. 9-12 AM. ditto above (area 4) 3200 ASL. South bent. cpts. Tanna.	O.T. 0/0 +	330	208	75	G. 47 C. 42. RNTT. 26 DOB: 10 LD: 6. WOB: 11.	TR 42 MTC 44.	Nil	W/T N.	long crop empty. STM ½ black shells (barnacles)
SP140 R222.	U.S.	30/1/35 9-12 AM. ditto above. 3200 ASL. (area 4) South bent. cpts. Tanna		Direct to spirit for museum examination.							

1936

Sk+Rout No	Sex	Shooting Data	Gon	Total	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach
SP159 R338	U.S.	20/1/36. Powder puff chick. Taken on slopes of Mt. Melon. 2800 ASL. South bent cpts. Tanna.		Direct to spirit.							
SP160 R339.	U.S.	20/1/36. ditto above about 200 ft lower + a ½ a mile away. Mt Melon. 2800. South bent cpts. Tanna.		Direct to spirit.							
SK157 R342.	♀ JUV.	22/1/36. Ditto above. 2800 ASL very crest of Mt. Melon. South bent cpts. Tanna.	O/O	325	80.	—	G 43. C 30. RNTT 23. DOB. 9. LD: 5 WOB 10	TR 41 MTC. 42.			long crop ½ blackish oily slime. STM ½ black slime + green matter (vegetable?)

208

SOFT PARTS.

IRIS lightish dark brown, white downy streak lower lid.
BILL. black, greyish black horned.
LEGS inner flesh outer jet black or tinged black, darker at ankle fading towards knee in a more or less degra d length. ~~flesh varies~~
FEET inner toes + web flesh, outer web tinged darker, outside toe jet black.
CLAWS jet black.

REMARKS.

found on precipitous hills behind Loakat + Sarenumlan (area 3). A non colonial bird nesting mostly singly, occasionally 2 birds within 50 yds of each other. They nest all over these precipitous slopes intermingled with Fregatta albigulaus. Fairly common in this area, some danger attached to collecting as they pick in dangerous places to nest, generally near a patch of light coloured cane grass, or bracken ferns at end of 6ft burrow, egg. pl. white. This specimen taken with fresh egg. (see SPE 25).

Specimen very fat. Tarsus outer not black only tinged, black at lower end, outer toe black. Has very dirty vent. No egg or ~~rather, taken by boy~~ who said no egg. They are semi colonial or colonial on the very tip top of this mountain but I believe this to be accidental (see my notes general survey of Tanna) as one goes down the slope they become more scattered.

Tarsus as on R 220 but black reaching half way up tarsus then fading off.

(both test opake).

SOFT PARTS IRIS lightish dark brown. BILL black, bare skin at base black. LEGS pink flesh, outer tarsus black
FEET outer toe black, touch black middle toe, webs, flesh pind veined. CLAWS. black.
Lower mandible still has a pinkish hard rib (peak).

Without parents in burrow 6ft long ~~semi~~ colonial.

Ditto above.

IRIS dark brown. bare skin blue grey. BILL upper M. blackish horn. Lower M. tip + edge black horn. under pak bluish horn.
LEGS bottom outer + back tarsus black fading upwards, ~~pink~~ flesh. FEET webs + toes pale livid flesh x for outer toe + touch middle toe black. CLAWS black.

In burrow no parent (left) colonial.

BREEDS. 211

PUFFINUS ? PACIFICUS (GMELIN)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

East Tanna (Areas 1+5) } TIKAREKARK. (said quickly)

(probably same as Igoton Lahat's of Futuna group, but seems blacker on uppers see Harrisson 1/2/35).

1935

SK+ROUTE	SEX	SHOOTING DATA.	GON	TOTAL	W.	TAIL	BILL	TR.	MOULT.	ABR	STOMACH.
SK33. R64.	♀	11 A.M. dull showy. caught in burrow under large stone 4 ft, within 20 ft of cliff edge dropping 40 ft sheer to sea facing N. Inakahi (area 5) 17/10/35 East Tanna.	1/2-	440	300	144	G 58 C. 40 RNTT. 32.	TR 49 MTC. 60	belly O (few).	W/T N.	O/O squid residue (?) black oily.
SK34 R65	♂	17/10/35. 11.30 A.M. dull showy. caught in burrow under stone, in colony with above, within 10 ft cliff edge. (area 5) Inakahi. Tanna.	U.T. 3/4+	468	305	137	G. 59. C. 40 RNTT. 31	TR 49 MTC 62	W. R. 14. TL. R 3 FL 3. upper back O (few). vent O (few).	W/T N.	O/O gum vegetable O. matter, with black spirit shells. black barnacles.
SK35 R 66	♀.	17/10/35. 11.40 A.M. dull showy. caught in rookery with above 3 ft burrow under stone 6 ft from cliff edge, moderate SE wind. (Area 5) Inakahi. Tanna.	1/2-	475	303	145.	G. 54 C. 41. RNTT. 31.	TR. 49 MTC 61.	neck O (few)	W/T N.	O/O residue (black shell of crustacean?).
SK65 R143.	♂	14/11/35. 2 P.M. fine sunny. caught in 3 foot burrow under stone within few feet of cliff edge. same colony as above R. 64-6. (Area 5) Inakahi. East Tanna.	1/1+	475	308	142	G. 60 C. 40 RNTT. 33. DOB. 14 LD. 9. W@B. 14.	TR. 52 MTC 63.	NIL	W/T V.V.S.	long crop empty. STM ½ had a piece of pumice with barnacles attached.
SK66 R 144.	♀	14/11/35. 2 P.M. ditto above (R. 143). area 5. Inakahi. East Tanna.	1/2+	457	300	142	G 60. C 48 RNTT 33. DOB. 14 LD. 9 W@B. 14	TR. 49 MTC. 58.	TL: R. 1, 4,	W/T. ?	crop empty. STM. ½ pieces pumice with barnacles.
SK107 R233.	♀	10/12/35. 1 P.M. showy. after 6 days strong winds SE to E. strong easterly blowing on night 3 in 3 ft burrow under stone near cliff edge. same colony as above. Inakahi East Tanna.	U.M. O.E. 1/1++.	460	290	139	G: 59 C: 40 RNTT 31-5 DOB. 13 LD. 8 W@B. 14	TR 45 MTC 57	NIL	W.N T.V.V.S.	long crop ¼ green slime. STM ¾ black shells.
SP143 R232	U.S	10/12/35. 1 P.M. ditto above direct to spirit without examination. area 5. Inakahi. East Tanna	—								

1936

R336.	U.S	19/1/36. 4 P.M. sunny showers. in evening, monsoonal. Usual type burrow in same colony as above (area 5) Inakahi. E. Tanna.		290	135		TR 48 MTC 56	all uppers O X nape M. all unders M.	W/T V.S.
R337	U.S.	19/1/36. 4 P.M. ditto above. (R336). (Area 5) Inakahi, E. Tanna.		298	137		TR. 50 MTC 63	nape O all unders O X chin C.	W/T V.S.
SP170	US	14/2/36. 4 P.M. fine sunny. taken in usual situation in same colony as above. Area 5 Inakahi. E. Tanna.	This parent taken with very young chick. (SP171). (FOUND NO BIRDS WITH LEG STRINGS)							
SP171	US.	14/2/36. 4 P.M. fine sunny. powder puff chick found with SP170. only a day or so old.								
SP172	US	14/12/36. 4.5 P.M. ditto above older chick no parent.	Good progressive series							
SP173.	US.	14/12/36. ditto above older chick no parent.								

SOFT PARTS

IRIS dark brown, white down on lower lid invisable when eye wide open.
BILL. blackhorn or lead colour, prominent nostril, curved tip.
LEGS flesh colour inside black or blackish down outer tarsus.
FEET. pale flesh with outer toe pale black. CLAWS pale horn.

REMARKS.

Not at all common. Estimate this colony to be about 20 pairs at most. Colony has been very large no doubt. Boys (old men) remember when it was very much more extensive than now. But the sea has undermined the cliff. earthquakes have caused landslide & much of the colony ~~facing~~ area disappeared. Though there is very suitable + similiar ledges + the same ledge running E prove it they are fast disappearing, man the biggest factor. The whole are is intensly volcanic + has be twice raised in the last 50 years by volcanic disturbances.

Tail slightly damaged after capture.
Has lice (put in spirit).

(uneven test. L test enl 13 x 9 R test enl 11 x 9 mm).

Colony has increased in strength, possably 50 pairs now (but no more). No eggs found in numerous nests examined, at least 12 birds present in burrows in colony.

(test enl 18 x 12 mm). Has dirty vent. Was heavily sick after capture + mutton oil got onto feathers.

Dirty vent, very sick vomited a great deal of oil when captured.

(diam largest ooyte 4 mm).

a gale blew on the 1, 2 + 3rd + strong winds varying S, SE, + E have been blowing since. at present a good stiff breeze blowing from E with big sea running when specimens were taken. Showers + dull cloudy visibility, bad. clouds down to 1000 ft or less. This specimen found during high tide (see SPE 28). Specimen has lice (put in spirit). (Later 19/2/36. Developed into hurricane centred in North other Heb.)

anus very enlarged flabby + soft + inflamed (oviduct very very enlarged probably egg laid within 2 hrs or less, ooytes ½ —)

Found in burrow with egg (SPE. 27.) Direct to spirit without interference for museum examination.
IRIS dark brown BILL blackhorn tip. (ins. side). dark slate side ribs + top of M. LEGS inner tarsus + toes + webs pale bluish flesh. outer tarsus + outer toe dark tinge claws pale horn.

Colony becoming very small no chicks to be found + only an addled fresh or partincubated egg. Believe hurricaine must have caused heavy losses, yet no addled eggs found. colony seems about 12 strong only so released this mths pair. Examined + released with 1 linen thread + 1 pale tusk fibre on left leg, notified native to return it if found. (feet pink flesh strongly veined otherwise usual).

Examined + released with 1 linen thread on R. leg.

(feet pink flesh strongly veined. as above).

soft parts usual except webs bluish tinge.
Colony very small perhaps 2 dozen pairs a bigger estimate. Breeding time about 1 mth as for Riika specimens evidentally, see my notes Harrisson 1/2/35.

IRIS dark brown. BILL smoky bluish horn LEGS + FEET pink flesh dark tinge outer tarsus + toes (especially on joints which are almost black). CLAWS transparent horn.

soft parts as above, tinge outer toe + tarsus deeper with age.

soft parts bill darker, dark marks on outer leg + toe much darker.

BREEDS.

215

RHIPIDURA FLABELLIFERA BRENCHLEYI (SHARPE).

SOUTHERN NEWHEBRIDES.

NATIVE NAMES

East Tanna area 1. } TASKISKISIE.

1935.

SK+ ROUT NO	SEX	SHOOTING DATA	GON	TOTAL	W.	TAIL	BILL	TR	MOULT.	ABR.	STOMACH
R.10	♂	2/10/35. 9 AM low tree 12 ft. fine sun. Semi bush. 200 ASL. (area 1.) White Sands, East Tanna.	1/1++	165	74	82	G15 C9.	19	NIL	W: C T: M.	3/4 beetles + minute insects.
R 11.	♂	2/10/35 10.30 AM fine sunny almost on ground, well hawa, fern undubrush. Semi bush. 200 ASL. (area 1) White sands, East Tanna.	U.T. 3/4.	165	77	85	G15 C9.	20	NIL	W/T S.	1/2 minute insects + beetles.
SK 5. R12	SUB AD ♀	3/10/35. 8 AM sun + cloud high in banyan tree 35 ft. Semi bush 200 ASL. (area 1) White sands, East Tanna.	1/4-	149	68	73	G14 C9	18.	chin M.	W: V.V.S. T: C.	1/4 minute insects.
R19.	♂	4/10/35. 9.30 AM sun + cloud, after rain. In wild hawa 4 ft. Semi bush. 250 ASL. area 1 Tanemukel. White sands East Tanna.	1/1++	149.	71.	83	G15 C9.	19.	NIL	W/T N.	1/2 insects.
SK18 R33.	♀	10/10/35. 10 AM sun + showers. In tree 6 ft. Semi bush fern undubrush 500 ASL. Takumpti gully. (area 1) East Tana.	1/2+	145	69	80	G15 C17.	18.	NIL	W/T N.	3/4 black bullhead beetles (boarers) + flying insects.
SK19 R34.	♂	10/10/35. 10.1 AM. with above. R 33. Area 1. Takumpti gully, East Tanna.	1/1+	149.	73	81.	G15 C9.	19	NIL	W: N T: S.	+ insects beetles 1 black ant.
R56.	♀	15/10/35 Bullockowry, in banyan tree 46 ft. Semi bush 200 ASL. Tanemukel, White sands E Tanna.	3/4	158	70	78	G15 C9.	18	NIL	W: N T: F.	
SP115. R98	✓? U.S.	4/11/35. 4 PM fine sunny. 2 nestlings found in tree 15 ft. Semi bush 200 ASL. Area 1. White Sands East Tanna.	clutch left to be sexed by museum.								
SP122 R151.	✓ ♂ SUB AD.	16/11/35. 5 PM. fine sunny. Low tree 10 ft. Semi bush 200 ASL. area 1. White sands, East Tanna.	0/0+	158	72	71	G15 C11.	18.	W: under covs A. TL: A (inner to outer moult) rump, back M nape A crown O vent M, breast O neck A.	W/T N.	—
SP126 R155	✓ # U.S.	19/11/35. 8 AM 2 nestlings go with SPN XVI (Area 3) Eastern foothills. Tanna.									
SK78 R175	JUV. ♂ SUB AD.	21/11/35 4 PM fine sunny. shot in tree 15 ft. semi bush. 600 ASL. (area 3.) Tanemelan. Eastern foothills, Tanna.	0/0+	130	65	55	G14 C17.	19	W: R. all X (pear) L. detto. TL: all back M. all unders O.	W/T N.	3/4 insects.
SK87 R195	♀	22/11/35 6 PM. fine sun. low shrub, near Saka river, 600 ASL. (Area 3) Eastern foothills Tanna.	1/2-	155	69	80	G15 C8.	19	NIL	W/T V.S.	3/4 minute insects.

SOFT PARTS.

IRIS dark brown

BILL black, white horn base bristles at base of bill.

LEGS & FEET. black or dark grey.

REMARKS.

Very very common in White Sands area in all types of country except the bare ash plain + there it is found in the very last zarags of vegetation on the extreme edge. Particularly common in the semi bush, scrub borders + dry areas. Goes up to 38 + 40 ft + higher but generally favours heights of from 0-20 ft. spends much time hunting in the undubrush at ground level. Is pugnacious + will always come to a squeaking call like a young bird in distress. This specimen was buffy under.

Not as buffy unders as R10.

(L test enl ++ R test enl 1/2).

This specimen probably sub adult judging by gonads + measurements. Not so buffy under as R10 but more so than R 11.

Badly damaged.

Buffy unders. Shot with mate R34 Couldn't find nest.

Buffy unders.

Usual. perhaps not quite so buffy unders.

(diam largest oocyte 2·75 mm).

gapes yellow.

Goes with SPN. 5.

Neck badly damaged. Much darker generally than others, patch feathers in wing distinct cinnimon instead of white, unders paler except upper breast which seems to have extensive grey patch.

(Later No doubt SUB ADULT. cinnimon patch sign)

NOTE Rufous or cinnimon wing patches in wing. These are evidentially carried well on into first year plumage as shown in R ~~14~~ 175 (SK78) This accounts for irregularity in R151 which is sub adult ♂ without doubt.

Believe R. spilor. not present on Tanna

Wings only taken. Note cinnimon patches in wings. Bird feeding + active as full adult when shot. As common in this area as in White Sands area but ~~sum~~ numbers seem to decrease with higher altitude after 1000 ft. Saw odd ones at 2500 ft more of R. brench.

Had many lice on chin.

BREEDS. (occasionally).

219

STERNA BERGI ?(CRISTATA)?

SOUTHERN NEWHEBRIDES.

NATIVE NAMES.

Aniwa Is. (area 6.) } SAUWAREVE said. sauwar-rie-vie

1935 (outer tail, measured from central feather base).

SK+ROUT. No	SEX	SHOOTING DATA.	GON.	TOTAL	W.	TAIL	BILL	TR.	MOULT.	ABR.	STOMACH.
SK 136 R311.	♀	21/12/35. 10 A.M. fine sunny. ozwing over water E. side Ejaro tidal lagoon. low tide rising. area 6. Aniwa Is.	1/2+	473	333.	INNER 90 OUTER 150.	H+H G. 84. C. 58·5 D@B. 16 W@B 18·5	TR 32 MTC 40.	W: R.1F, L.1F,	W/T N.	long crop + 2 complete sardines STM. + fishbones flesh ect
SK 145 R320.	♀	24/12/35. 11 A.M. fine sunny day low tide rising, on wing over sand flats, E. side Ejaro tidal lagoon, other in flight elsewhere. area 6. Aniwa Is.	1/2+	462	336	INNER 78 OUTER R.140 L.111	G 86 C 60 D@B 15 W@B 17·5.	TR. 30 MTC 36.	W: R. 4, 28, L. 4, 20 F. seconds + covs 0. TL: L. 6. all uppers 0 neck chin 0.	W/T N.	0/0 both empty.
SK 152. R329	♂	26/12/35. 10 A.M. fine sunny. half tide falling. sitting on stump W side Ejaro tidal lagoon. area 6. Aniwa Is.	1/2+ ~~+01~~	510	353	INNER 84 OUTER 181.	G 86 C 64·5. D@B 16. W@B 19	TR. 30 MTC. 34.	NIL	W/T S.	0/0 residue.

SOFT PARTS.

IRIS dark brown.
BILL pale greenish yellow.
LEGS & FEET + WEBS black under toes black.

220

REMARKS.

Very common around Aniwa Is and always number of them in the air or resting on stumps, sand or stones in Ejaro tidal lagoon, especially at low tide. Noted numerous plumage phases but all one species I think. Natives speak of its nesting occasionally on cliff ledges (over area 6 mainly) or above high tide mark, but must be rarely assume nature to have never seen its nest. Most old men say it does nest but an odd youngster claims to have seen it. But all admit it isn't common. Aniwans make no same difference for sex of terns.

Mottled phase but same sub-spec as R320 I think.
Note under toes black. bill greenish yellow.

(testes L 10·5 X 6·5 mm)

BREEDS.

221

STERNA SUMATRANA poss. MATHEWENSIS.

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

Anuwa Is. area 6. } SUARVARÈVÈ said Suawar-rie-vie

1935 (outer tail measured from base central feathers.

Sk+Rout. No	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr.	Moult.	Abr.	Stomach.
SK135. R.310	♀	21/12/35. 7 11 AM. fine sunny. on stump in middle of Ejaro tidal lagoon, rising tide. 4ft of water. 150-200 yds all around stump. Bird by itself. (Area 6) Anuwa Is.	O.S.E. 9/4. ~~10~~	325	230	INNER 68 OUTER R.114 L.105.	C.57. C.40 D&B 7 W&B.9.5.	TR. 19 MTC. 23.	W: R.4,17,19,21 F with secondst covs. L: 4, 9. with seconds+covs. TL: R5, L.3,6, covs 0. all uppers 0 X nape. vent, tibs, flank M. neck chin 0 (decreasing towards head)	W/T. mixed ~~107~~	long crop + whit or blue bait. STM + pulp of above.

SOFT PARTS

IRIS dark brown.

BILL black.

LEGS, FEET & WEBS. black.

222

REMARKS.

Fairly common around Anuwa + out to sea between Tanna + Anuwa. Nest of Anuwa every year. One nest + eggs destroyed by hurricane previous week to my arrival, + another of nestlings. Every young ones swept out by same hurricane therefore hatched about ~~[illegible]~~ 8th Jan. Nests on rubble just above high tide mark. Note the intensified pink of feathers in moult. No 4 in each wing was a really beautiful deep shell pink. (Hurricane started 10 or 11th Jan.)

(oviduct slightly enlarged) (ABR: W: 3 outer prim M others N: TL: long prim R. much others N).

NON BREEDING (Tyrwhitt-Fearnehough).

223

STERNA ANOETHETA (SCOPOLI)

SOUTHERN NEW HEBRIDES

Unknown to natives.
They call it "pidgeon belong big sea" (i.e. ocean). some of them have seen it, as I myself have, well out to sea when crossing between islands.

Sk+Rout No.	Sex	Shooting Data	Gon.	Total	W	Bill	Bill	Tr	Moult	Abr.	Stomach
		1935									
SK.110 R239	♂	14/12/35. Blown ashore by hurricane (centred in northern group, Santo) Sulphur Bay. area. East Tanna	1/2	400	275 4 155.	INNER 78 OUTER	G 62 C 42 RNTT. 33 D@B. 11 W@B. 15	TR 24.5. MTC 27.	W.R.2.L.2.	W/T mixed	long crop + stomach 0/0 black oily residue.
		1936									
SK 162. R.354	♂	31/1/36 9 AM flew ashore against W. wind on lee side of island in exhausted state + landed just above H.W. mark, caught by hand. Hurricane centre about Santo in N. group. Weirisi Bay East Tanna	1/4.	395	290	INNER 65 OUTER 143	G 64 C 43 D@B 11. W@B 14	TR 23 MTC. 30.	W.R. 5,6,7F 11,28 seconds M L.5,6,11,27,28 covs O. TL: R.1,2,L,2 covs C. rump, upper back C nape M crown O all unders C X neck chin O	S	long crop + STM. 0/0 empty.

SOFT PARTS.

IRIS dark brown.
BILL jet black.
LEGS & FEET black. CLAWS jet black.

REMARKS.

Found on beach early morning, after worst of hurricane, washed ashore. Have seen it at odd times around the group but seldom in any great numbers, + not at this time of year as I always thought they were busy nesting around the latitudes of Norfolk + Lord Howe I + at this time of year.

(outer prim which is longest broken off so wing is 275+) (ABR badly storm damage, but tue ak. is about (W: 2 outer prim V.K.M. others V.S. (TL: mixed, M.C.1.5.N average For C

has been put in spirit) As the hurricane wind ~~has~~ moving W Weirisi became a lee + this bird struggled ashore. Weather was still very boisterous + raining. Hurricane centred about Santo by direction of wind.

BREEDS. 227

TRICHOGLOSSUS ORNATUS MASSENA (BONAP).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

East Tanna area 1. } SEUL (SOOL).
Aniwa Is. area 6 } SERAKURA.

1935.

SK+ROUT. No.	SEX	SHOOTING DATA.	GON.	TOTAL.	W.	TAIL	BILL	TR.	MOULT.	ABR.	STOMACH.	REMARKS.
R9.	♀	2/10/35. 10 A.M. bright sunny. Shot in coconut top 40 ft. semi bush. 40 ASL (area 1) White Sands, East Tanna.	1/4 –	230	130	90	C 19 C 19.	16.	W: R, 3F	W: moult T: S.	1/4 banyan fruit.	Fairly common in White sands area but completely disappears at times. Nowhere as common as in the northern group. Are very very nomadic on Tanna & go into all areas in their travels. Travel in small flocks of half a doyen, have never seen big flocks like in the northern group. Feeds a lot in banyans at this time of year. Very wary, "man Tanna" appreciates "ornatus pie" & has made them savvy "man more musket".
R101	♂	5/11/35. 9 A.M. fine sunny. in banyan 30 ft on side of steep hilly. Semi bush. 250 ASL. Aya 1. Tanimoka, White sands. E. Tanna.	1/4 –	258	135	94	C 21 C 21.	16.	~~W: R, 4-6, 21 L.~~ W: R. 4-6, 21; L. 4-6, 20, 21. covs seconds O. TL: R1, L1, covs O all uppers O X back crown M all unders O.	W/T M.	1/2 banyan seeds.	Exactly the same bird as northern islands
R.110	♂	7/11/35. 10 A.M. dull showy. Feeding in banyan 40 ft. Semi bush. 200 ASL (area 1) White sands. East Tanna.	1/4 –	262	134	95.	C 21 C 22.	17.	W: under covs M. TL: R. 1F, 2F, L. 1F, 2F covs M. all uppers O X neck crown M. breast neck O chin A	W/T V.V.S.	3/4 banyan seeds.	Too much moult for good skin.

1936.

| SK 153. R 330 | ♂ SUB AD. | 2/1/36. 11 A.M. fine sunny. calm, visiblity very good. Tanwaway Aber. In garden lands, W side of Island on coastal flat. Aniwa Is. | 0/0+ | 225 | 138 | 95 | C 19 C 19. | 15. | neck chin O. | W/T V.S. | (X) shot to hell. | By no means common on Aniwa, only casual visitors from Tanna or Erromanga (against wind so principally Tanna I think across wind) which are both clear with good visibility. Heard 3 the whole time I was there, 3 birds of this year one of them, other 2 escaped southwards full speed. Native on Aniwa give them hell too. Any that do come are killed or dont stay long. Not a real Aniwan bird. Does not nest on the island. This specimen very fat. had lice & flying ticks on it. |

SOFT PARTS.

IRIS large pupil, yellow with dark outer ring (orange with darker inner ring of Aniwa).
BILL red to reddish pink pale tip to corn yellow tip.
LEGS slate.
FEET uppers slate, unders pale, claws black.

NON BREEDING

229

TRINGA BREVIPES (VIEILLOT).

SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

White Sands, (area 1) } PETOARVAR.

Anwa Is area 6 } KU-RE-RE. (COO-RE-RE).

1935.

Sk+Rout No	Sex	Shooting Data.	Gon	Total	W.	Tail	Bill	Tr.	Moult.	Abr.	Stomach.
R. 25	♀	5/10/35. 12.30 P.M. Fine sunny. On black rocks A.S.L. south end of White Sands beach. Area 1. White Sands East Tanna.	1/4	281.	169	72	G 45 C 41	36.	upper back C. alluvders O	W/T F.	1/4 crab (small) residue + shellfish.
SK62. R133	♀	12/11/35. 10 AM fine sunny at waters edge W side Sewi Lake, 120 ASL (Area 1 or 2). one of flock of 2 dogym. Sewi Lake, East Tanna.	1/4	270	162	65	G 44 ⊗ C. ⊗	34.	crown O (few)	W/T N.	1/4 1 dragonfly lava.
R134	♂	12/11/35. Same shot as above. (Area 2) 120 ASL East Tanna	O.T. O/O+ +O+	277	165	68	G. 45 C 37.	36	upper nape, crown O	W/T N.	0/0 volcanic sand residue.
R135.	♂	12/11/35. Same shot as above Area 2. West Sewi. 120 ASL. East Tanna.	1/4	268.	160	68.	G 44 C 37.	33.	NIL	W/T V.V.S.	1/2 lava of dragonfly.
SK68. R148.	♀	15/11/35. 2 PM. fine sun. shot at waters edge W side Sewi Lake, 120 ASL. On its own. (Area 2) West Sewi East Tanna.	1/4	284	170	72	G. 49 C 40.	36	NIL	W: V.V.S. T: S.	1/2 lava of dragon fly, small beetles, volcanic sand.
SK131. R 300	♀	20/12/35. 9-11 AM fine sun on reef top on E side of island. low tide. A.S.L. one of flock 20. (area 6.) Anwa Is.	1/4	285	171	74.	G. 47.5 C. 41. DeB: 7.5 WeB. 6.	TR 32. MTC 34.	W: R. 6, 7 + 9, L: ditto. seconds + covs M. TL: L. 3. covs C. back O breast C neck, chin O	W: F. T. S.	1/2 grit, small crab claws.
R 322	♂	24/12/35. 9 AM fine sunny. low tide falling on sandy flats south end Ejaro tidal lagoon. A.S.L. area 6. one of a pair. Anwa Is.	O/O+	295	175	76	G. 47 C 40.	TR 34 MTC 32.	W: R. 5, 6, 22, 23 L. 5, 6, 22, 23, seconds + covs M. TL: R. 1, L. 1, covs M all uppers O fur scattered. alluvders O X breast chin C.	W/T Mixed +O+	

SOFT PARTS.

TANNA (area 1): IRIS light to dark brown light outer ring. BILL (upper M black, lower M dark fly, pale horn base, black all). LEGS + FEET yellowish to grey yellowish

ANWA (area 6): IRIS brown. BILL black, base lower M white horn. LEGS + FEET dep chrome, joints greenish tinge. CLAWS black.

REMARKS.

The first migrants arrived on the East coast of Malekula, northern group, on the 2/9/35 amongst these I saw, Tringa, pluvialis, + arenaria. They had reached Tanna by 28/9/35 but were probably here long before that.

(surprisingly little abrasion for a bird which has just completed such a long migr flight).

Not scarce around lake or on black stones all along the coast line, but very shy. Around lake their ratio to pluvialis would be about 1 to 40 or 50. but along coast they would only be about 1 to 5 or six of pluvialis. Flocks of tringa + pluvialis are fair game to circus + falco though falco seldom harries them but circus hunts them a great deal. Saw this flock feeding on dragon fly lava as they emerged or attached themselves to rocks to shed their skin or rest. This specimen very fat.

badly shot damaged.

(R test black).

Specimen very fat. badly shot damaged.

(Fraslice). Noticed numerous (6 or 8) hawks, (circus) harrying ducks + waders which acts for this one being on his own no doubt singled out by a hawk but escaped.

Very common along with many other waders in Ejaro tidal lagoon + on reef top around island.

(ABR. W: outer prim. M tail mixed aver. F).

BREEDS.

231

TURDUS POLIOCEPHALUS ALBIFRONS(?) (RAMSAY)

SOUTHERN NEW HEBRIDES

NATIVE NAMES.

Eastern foothills (Esaka + Tanemulan) area 3. } KUMSUMSUM.

1935

SK+ROUT. No.	SEX	SHOOTING DATA.	GON.	TOTAL	W.	TAIL	BILL	TR.	MOULT.	ABR.	STOMACH.
SK 83. R183	♀ JUV.	29/11/35 4 PM fine aver. in fern in underbrush on a steep hillside of 600 ASL. one of a family party Esaka, area 3. Eastern foothills, Tanna	0/0	175 ®	90	53	G 28 C. 18.	33	W. R. all x spar. L. ditto covs M. TL: all ®. upper back ©.	W/T N.	+ fruit, berries
SK 96 R211	♂	29/11/35 9 AM showy. dip fern gully, dense underbrush under hills abov. height 20-25 ft. Rugged country. Labeiplateau 2200 ASL. Area 4 South bent. ents. Tanna.	1/1+	200	106	72	G 28 C 20	34.	NIL	W/T V.S.	3/4 snails, insects + black cricket
SK 100 R216.	♂	29/11/35 6 PM showy. dense fern + underbrush nder camp. 2500 ASL. (as above) area 4. Labeiplateau South bent. ents. Tanna.	1/1+	202	112	79.	G. 28 C. 19.	34.	NIL	W/T V.S.	0/0 black shells, residue.
SK 106 R230	♂	8/12/35 9 AM showy. Found dead on road across island near Loeniwalla, dense fern + underbrush, 1600 ASL. extreme N of East foothills area or on SE bord. bent ents area. (area 3 or 4) Tanna.	1/1-	220	113	81.	G. 27.5 C. 19.	34	NIL	W. V.S. T. N.	0/0 empty.

SOFT PARTS.

IRIS dark brown. eyelids, bright yellow skin edged (narrow). bare patch skin below eye yellow tinged.

BILL bright yellow.

LEGS + FEET. bright yellow.

REMARKS.

Tail badly damaged by shot. Fairly common in area but very very shy. ♂ Numbers increase with altitude.
IRIS dark brown yellowish patch skin behind + below eye. BILL pale yellowish horn bright yellow gape. LEGS yellow behind tarsus, dull unbrush yellow tinge in front of tarsus. feet ditto yellow, under toes bright yellow

Common in area but a very very shy bird with a marvelously quick sight + in the dense underbrush it inhabits very hard to collect. ♂ More often heard than seen. Has a chattering call used as an alarm note, very similiar to English blackbird, also a "soyt soyt" note used as alarm or enquiry note. Answers to + uses as a feeding note a call which can be made by pursing lips + drawing in breath sharply. Rarely called close by this call but comes always + keeps well hidden, it generally sees you before you see it, gives a harsh call + clears out, alarmed at slightest movement or (test enl 14 x 9 mm) sound. A very trying bird to collect, much wilder than ♂ Northern birds. Inhabits unpopulated parts.

Shot shortly before dark. We were 3 days getting the first one of these birds (not counting 4 days in foothills area for 1 bird) This bird nested or roosted in a gully below the camp + we heard him night + morning, so I waited in a clear patch + got him on the wing as he crossed it on his way to roost. Tried beating them out + although they drove a long way ahead of beater keep under cover + generally elude guns + slip off (test enl 14 x 9 mm)

Found dead on road, perhaps from rough weather but probably from some sickness as bird was very thin appeared to be bowel bound

(beak + legs more orange yellow) (test enl. 11 x 9 mm)

BREEDS. 237

TYTO ALBA LULU (PEALE).

(NORTH.) SOUTHERN NEW HEBRIDES.

NATIVE NAMES.

East Tanna (areas 1-3+5) } KE(A)H(I)MEET. (A + i part sounded ahi a nasal puff sound).

Anuwa Is. (area 6.) } RURU

SK. + Rout. No	Sex	Shooting Data	Gon	Total	W	Tail	Bill	Tr.	Moult.	Abr	Stomach.
SK1. R.1.	♂	29/7/35. 11 AM. dull cloudy. Feeding in daytime, shot on ground 50 yds from sea, 10 ASL in open coconut plantation down a W coast coast Pentecost Is. North NH	1/4+	—	265	106	G45 C-	65.	vent bust 0	W/T S	½ lizard skeleton, grumus matter, oily
SK16 R30	♂	11/10/35. 8 PM showy. In dark, tiu 20 ft. Sehri bush garden lands borders 200 ASL Tanemukul, White Sands. (area 1) E. Tanna.	1/4-	312	265	107	G36 C20.	70	NIL	W. V.S T.F.	0/0 black smelly residue.
SK104 R227	♂	7/12/35. 3 AM. showy wathy. In dark, banyan tree semi bush 200 ASL Area 1 White Sands. East Tanna.	1/2-	350	275	111	G42 C21.	73.	W: R. 11, 12, 2.2 L. 7, 12, 2.2 covs M. seconds 0 TL: R. 5. L 5. covs M all uppers M all unders M.	W/T V.V.S.	+ a medium sized rat (fresh).
SK142 R317.	♀	23/12/35. 7 PM. dark, no moon in tree in garden lands 10 ASL after showers in afternoon, on coastal flats on W side of island (area 6) Anuwa Is.	1/2.	335	261	113	G:44 C:20 D@8.16 W@8.2.2. RNTT 20.5.	TR. 64 MTC 40	W: R. 3, 6, 20 F. 24-27- L: 3, 6, 13, 20, 24-27- } seconds 0 covs M especaunder TL: R. 3, 6, L. 2. rump 0 upper back M nape crown 0 all unders C X chin 0.	W: S. T: missed	0/0 empty.
		1936.									
SK156 R340	♀	21/1/36. 2 PM fine sunny odd cloud. In tree semi bush. 250 ASL. behind Takumpti gully. White Sands area 1. E East Tanna.	OVE. 1++ ~~10~~	346 ~~346~~	271	110.	G45 C22. RNTT 21.	TR 65 MTC 46	W: L. 3 F 14, 21. covs M. R. covs 0. all uppers 0 (few scattered) all unders 0 X neck chin C.	W/T V.S.	+ complete rat part digested.

SOFT PARTS.

PENTECOST. NORTH NEW HEBRIDES. { IRIS dark brown large pupil. BILL light white horn pinkish base. FEET + LEGS greyish white, hairy, claws long dark horn very sharp.

TANNA (area 1) { IRIS dark brown large pupil. BILL white horn, pale base not pinkish. LEGS + FEET dirty yellowish white, hairy toes darker upper, unders creamy yellowish.

ANIWA IS. (area 6). { IRIS dark brown. BILL white horn, pink colouring at base. LEGS dirty white, hairy. FEET darker, under toes yellowish white. CLAWS dark horn.

238

REMARKS.

Shot for comparison with southern birds. Shot feeding on ground in day time in open coconut plantation within 60 yds H.W mark. Second shot at it as nat. two fired at it 5 minutes earlier. Not starving either as stomach had contents. Fairly common around these parts.
Note buffy unders NB. Mayr. better.

Common (fairly) in area, in fact perhaps more common than usual up north, especially open type country like Sevu.
This specimen very verminy having most of lice + odd ticks on it (specs. of both put in spirit).

Badly shot damaged. Taboo bird for certain totems. This bird is known as the tetanus bird amongst the natives on Tanna. They have noted the clareing + eyes turning in head of children + adults who die of tetanus is similar to these birds, therefore children (+ it is mostly children get it) catch the sickness from this bird, how or when they dont attempt to explain. This is possably the reason for them killing them whenever possable. It is fairly common to find one stuck on a stick (dead) in the middle of a road (not my idea of fun to find one so). A "taboo man totem" may kill it but must not touch it.
Fairly common on island + breeds there, often heard them calling at night. Much the same as Tanna sea difference may af for any variation.

soft parts Bill pale white horn. legs greyish white claws greyish horn.

(oviduct very very much enlarged + a large oocyte in duct smashed by shot. diam of 2nd largest oocyte 9mm).

ZOSTEROPS FLAVIFRONS. ~~PROBS~~ 2 pass. (MAJUSCULA)

SOUTHERN NEW HEBRIDES

(see Murphy + Mathews; Amer. Mus. Nov. No 365. 2/7/29).

NATIVE NAMES.

Tanna areas 1-5 } KLEBLEBAN (for lat. as well but incorrect).
KOUIER (alternative name).

Anuwa Is. area 6 } FURISAYU

1935

SK + Rout No.	Sex	SHOOTING DATA.	GON.	TOTAL	W.	TAIL	BILL	TR	MOULT.	ABR.	STOMACH.
SK 9. R16.	♂	4/10/35. 10 AM. sun + cloud after rain low tree 6ft. semi bush, 200 ASL. Janemukel. area 1. White Sands. E. Tanna.	1/1++	138	66	47	G 20 C 14.	20	nape M crown O neck chin O	W/T N.	3/4 fig + banyan fruit seeds.
SK 22 R37	♀	11/10/35. 10. A.M. sun + showers. feeding in banyan 10 ft semi bush, 150 ASL. area 1. Sakumpti gully. White Sands. E. Tanna.	1/1++ rot	138	62	46	G 19 C 15.	20	NIL	W/T N.	3/4 banyan fruit.
SK 23 R38.	♂	10/10/35. 11 AM. fig tree 15 ft. garden land. 150 ASL. sun + showers (area 1) Janowie, White Sands, East Tanna.	1/1	138	63	50	G 20 C. 14	21.	all unders O.	W/T N.	1/2 2 blackants. banyan fruit.
SK 25 R50	♂	14/10/35. 10 AM. fine sun. Semi bush. 15 ft. (area 1) 200 ASL. White sands. E. Tanna.	1/1+	140	64	47	G 20 C 14.	21	TL; under covs O. chin O	W. V.S. T. C.	1/2 fruit, seeds.
SK 27 R 51.	♀ (SUB? AD)	15/10/35. 11 AM. dull day. low tree 20 ft. semi bush. 250 ASL. (area 1) White Sands. E. Tanna.	1/4-	132	62	44	G 19 C 13.	21.	W: covs O TL: covs O. ~~back~~ nape O crown M all unders O	W/T V.S.	3/4 banyan fruit.
R. 62.	♀	16/10/35. 2 P.M dull showry. 10 ft up in tree, dense bush + undubrush, 600 ASL. (area 5) Snakahi East Tanna.	1/4- rot	135.	63	45.	G 20 C 13.	21.	all unders O.	W/T N.	1/2 fruit.
SP 108 R 83.	U.S.	31/10/35. 8. A.M. fine sun. 10 ft up in casuarina tree, open grass lands paddock 120 ASL. White Sands (area 1) East Tanna.		132	65	44	G 19 C 13.	20	TL: L 1-3 (5+6 ⊗).	W/T V.S.	
SK 43 R 85	♂	1/11/35. 8. A.M. fine sun. low tree 10 ft garden lands. 200 ASL. (area 1) White Sands. E Tanna.	1/1+ rot	135	66	48	G 19 C 14.	21	NIL	W/T V.V.S.	0/0 seed residue.
SP 110 R 87.	U.S.	2/11/35. 11 AM. fine sunny. low tree 20 ft. garden land 200 ASL. (area 1) White Sands East Tanna.		130	65	49	G 19 C 14.	21.	TL: ⊗.	W/T V.S.	—
SP 111 R 88	♀ JUV.	2/11/35. 3 P.M. fine sunny. low tree 15 ft garden land 200 ASL. (area 1) White Sands East Tanna.	0/0.	122	61.	40	G 17 C. 11.	20	W: all. finishing covs M. TL: all F. back A odd all body.	W/T N.	1/4 banyan berry.
SP 112. R 89.	♀	2/11/35. 3 PM. near above (R 88). area 1. East Tanna.	3/4+	138	63	47	G 19 C 14.	20	TL: R. 6. L. ⊗. odd scattered body.	W/T N.	0/0 fruit seed residue.
SP 113 R 90	♀	2/11/35. 3 PM. near above 2 (R 87 & 8)	1/2+	134	62	44	G 19 C 13.	21.	all uppers O all unders O.	W/T V.V.S.	—
SK 48 R 102.	♀	5/11/35. 10:30 AM. fine sun. low tree 10 ft. Pandanus cane grass area, Sewi borders. area 1. 250 ASL. East Tanna.	3/4+ rot	133	61	44.	G 19 C 13.	21.	NIL	W/T F.	1/2 small leaved banyan figs.
R 103	♀	5/11/35. 12 A.M. fine sun Semi bush at 50 ASL. area 1. White Sands, East Tanna.	1/2+	135	62	44	G 20 C. 14.	21	W: covs. seconds M. TL: R. 1, L. 1, covs M. upper back A nape M. crown O all unders M.	W/T V.V.S.	1/4 fruit seeds.
R 111.	♂	7/11/35. 10 A.M. dull showry. tree 15 ft, low semi bush. sewi borders ~~margin~~ area. 250 ASL. area 1. East Tanna.	1/1-	137	66	48	G 19 C 13.	21.	TL: under covs O. cheks or chin O	W/T V.V.S	3/4 banyan berries.
R 112	♀	7/11/35. 10 AM. same shot as above possably mated.	1/2+	135	62	43	G 20 C 14.	21.	W: R. 3, 6, L. 4, 10 F. TL: L. 1+2 (2) under covs M. upper back nape crown O. neck cheks, chin O.	W/T moult rot	3/4 banyan berries.

CONTINUED OVER LEAF. (P. 243).

SOFT PARTS.

TANNA. (areas 1-5.)
- IRIS. light brown pale outer ring.
- BILL. upper M black horn lower M tip 1/3 black base 2/3 pale whitehorn.
- LEGS + FEET. greenish to yellowish to pale slate tinge.

Anuwa Is. (area 6.)
- IRIS light brown.
- BILL upper M brownish black, lower M tip 1/3 ditto base pale whitehorn.
- LEGS + FEET. bluesh grey slate

REMARKS.

Very very common in all types of country in area, common as sparrows round a horse farm. The number per square mile must be enormous. The commonest bird on Tanna in all types of country I think. Larger than northern birds. The amount of food they consume must be enormous as they are always indistriously searching leaves twigs + fruit for food. Habits seem identical to northern birds. Run to alarm call for hawks, owls + kingfishers. Notes of song stronger + clearer than northern birds. Fairly pugnacious but always routed by Grey jumella.

(Egg in oviduct broken, by shot. noted 2 shrivelled but large corms amongst ooytes ~~which~~ like cases which may have held enlarged ooytes)

poor skin.

Probably sub adult. by gonads measurements + moult.

Typical no variations to White Sands. Perhaps not as numerous as in W. S area in denser types of bush but very little difference.

(ovaries very peculiar as if in each, somewhat similar to Petroica R58. perhaps the sign of egg laid + bird sitting)

(test enl 11 x 8 mm)

badly shot damaged.

Shot in pandanus cane grass sect sewi borders (see area 1). Appears slightly smaller than previous ones poss immature. Bill appears light R 103 + not so black in colour, being brownish towards base upper M. plumage may be slightly more yellow.

(Later 1/2/36. Evidentally an intermediate with Anuwa.)

(Ham largest ooyte 2·5 mm)

Shot to compare with R 102 as R 102 appeared smaller than usual in hand.

This specimen shot where the semi bush + sewi borders areas of White Sands, district, blend. Some of few odd fairly large trees, principally banyans, some stunted trees + a lot of cane grass + pandanus + a few coconuts.

(test enl. 8 x 5 mm). Possably mated with R 112.

(ABR: W: 2 outer prim C. others V.V.S. TL: V.V.S.)

ZOSTEROPS FLAVIFRONS (MAJUSCULA ?). CONT.

1935

SK+ROUT NO.	SEX	SHOOTING DATA.	GON	TOTAL	W	TAIL	BILL	TR.	MOULT	ABR	STOMACH.	REMARKS.
R.128.	♂	11/11/35. 11 AM. fine sun. low bushy 15 ft. low dense tangled brow scrub over. height 20 ft. on flats W side of Sewi lake 150 ASL (area 2) West Sewi. E Tanna.	1/1.	138.	64	46	G20 C14	21.	chin O.	W:N T.VS.	½ fruit.	very ~~very~~ common in area ~~perhaps~~ not as many to square mile as white sands area, no doubt because there is not the quantity of food to carry as big a number (few fruit trees, banyans ect.). This specimen appears to be brighter yellow underneath + on pre forehead than those from E side of lake. (test enl 10x8 mm.)
R129.	♂ SUB. AD.	11/11/35. 11.5 AM. shot near above (R128) area 2. West Sewi. E. Tanna.	0/0+	129.	61	44.	G16 C12.	19.5.	W: under covs A. seconds + covs O. TL: all F covs M. (appears outwards to inner) ~~(blended)~~ sequence. rump + back A nape + crown M. belly, vent + chin M all other unders A	W/T N.	¾ large caterpillar small grub.	No doubt with the shortage of fruit trees in this area this species becomes more insectivorous. note few cases of insects ect. in ~~Tanna~~ White Sands area.
SP120 R136.	U.S.	12/11/35. 2 PM. bright sun. thc 15 ft. low dense tangled brow scrub. average height 20 ft. on flats W side of sub lake 150 ASL. area 2. West Sewi. E. Tanna.		131.	63	45.	G19 C13.	21.	chin O (finishing).	W:VS TL:F.		This was taken from same area as R128 but further in towards foothills area. It seems to carry out the same variation as R128. being brighter than general run of ~~White~~ sands area.
SP120 R137	U.S.	12/11/35 3:30 PM. ditto above R136. (area 2) 200 ASL. West Sewi. E Tanna.		137	65	46	G19 C13.	21.	NIL	W:VS T:F.		as R136 taken further in towards foothills. Is also brighter than White Sands area.
SP125 R153	U.S.	19/11/35 9 AM. dull cloudy. 5. in other + fledgling found in canegrass. 4000 600 ASL. E saka Jensemlan area. Area 3. Eastern foothills Tanna.		Direct to spirit for museum examination								
SK75 R167.	♂	19/11/35. 8 AM. dull cloudy in bit 8 ft. in river bed E saka valley 900 ASL. Deep steep valley dense fern + pine + bush. well low trees, precipitous slopes. area 3. Eastern foothills Tanna.	1/1+	143	69.	50	G20 C16.	21.	NIL	W/T S.	+ fruit + seeds	as common throught this area as the white sands area, except up in the higher slopes where it is less numerous but still quite common. Appears larger + brighter than W.S. area, about as bright as Sewi area but larger (this larger run will need further proovering in hand specimens but is quite to be expected with an altitude increase). From a nest + hunt study there seems to be no difference to W.S. specimens. They nest in wild cane, trees, ect. In 4 nests (test enl. 11x7 mm.) I inspected I found all with 3 eggs + all well advanced in incubation.
R168.	♂	19/11/35. 11 AM. dull cloudy shot not so far up the valley same type country but boordmully on Sewi bush. garden land area 600 ASL. Area 3 Eastern foothills Tanna.	1/1	140	63.	48.	G21 C15.	22	NIL	W/T V.S.	¼ fruit + berries.	Not so large as R167 but brighter than W.S. area (test enl 9x6).
R180 ~~R169~~	♀	21/11/35. 12 AM. fine sunny. in low wind blown scrub average height 8-15 ft on edge of Labri plateau 2400 ASL. falling nearly sheer to 1400 ft. South Bent. ents. Tanna.	1/2+	137	65	50	G20 C14.	22.	W: L ⊗. TL: R. 5, 6, under covs A. crown ⊗ chin O.	W:VS. T:F.	½ small black beetles.	Bright unders very similar to R167-8 on the large side. Must go into this later after covering all areas.
SK91. R202.	♂	28/11/35. 9 AM. dull cloudy low tree, dense fern under brush under low trees average height 20 ft. Labri plateau 2500 ASL. South Bent. ents. Tanna. (area 4)	1/1	135	69	47	G20 C. 15.	21.	W: R. 2 F.	W/T F.	¾ fruit seeds.	Brighter yellow unders than White Sands area. running largish
R203	♂	28/11/35. 9.30 AM. dull cloudy. similar surrounding to above. R. 202. but 2600 ASL. Labri plateau. (area 4) South Bent. ents. Tanna.	¾+	135	~~64~~ 67	~~48~~ 48	G⊗ C⊗	21 21	NIL	W/T S.	½ fruit seeds.	(ditto R 202).
SK93. R204.	♀	28/11/35 10 AM. dull cloudy. shot at camp, similar surroundings to R202. but 2300 ASL. Labri plateau area 4. South Bent ents. Tanna.	1/4.	131	64	45	G19 C14.	20	NIL	W:N T.S.	¼ fruit seeds + berries.	ditto above but not so large but is ♀ + may be sub adult by gonads.
SPP1. R.249.	♀	17/12/35 12.30 PM. fine sun. semi bush. 25 ASL. near mission on coastal flats W. side of island (area 6) Anuwa Is.	0 S E ½+ ~~10~~	136.	64	47	G21 C13.5.	21.	nape crown C. all unders O X chin C.	W/T mixed ~~10~~	+ fruit insects.	(~~paper tag~~). Very common throught whole island even in mangroves of Sparo tidal lagoon. Number per square mile must be very great (same as White Sands, Tanna). Tends to be brighter yellow unders than White Sands but about on a par with the mountain areas of Tanna or perhaps brighter. (paper tag.). (oviduct slightly enlarged. oocytes only ½+) (ABR: W. mixed over S. TL. mixed over CON).
SP146. R.250.	U.S.	17/12/35. 3 PM. fine sun. garden lands 20 ASL. on coastal flats W side of island north of mission area 6. Anuwa Is.		Direct to spirit for museum examination.								Note pale belly is this a sign of sub adult? IRIS light brown. BILL brownish black + pale, horn. legs + feet pale bluish slate.
SK117 R.256.	♀	18/12/35. 6-12 AM. cloud + sun, odd sprinkles of rain. semi bush, garden lands, dry hardwood scrubs, coast	1/2	137.	66	49.	G20 C14.	21.	W. R 8 L. 9 covs O. TL: covs M. upper back M crown O. all unders O.	W/T F.	½ insects + ants.	Note Anuwan bird run on the large side, yet sea level area. see summary Tanna.
SK118 R257	♀	coastal scrubs ect. general sample from whole island 0-100 ASL. ∴ no real differences apparent.	¾	138	65	47	G20 C14.	20.	W: covs seconds O. TL: covs O. all uppers C. all unders O.	W/T S.	½ insects fruit.	
SK119. R258.	♂	General of all four R.256-7 bills blackish brown to black. base ⅓ lower M. pale white horn. legs/feet bluish grey slate. area 6. Anuwa Is.	1/1-	139	68	49.	G. 21 C. 14.	21.	W: R. 8. L 8, 9. TL: covs C. all uppers O X back M. all unders O (few scattered.	W/T VVS.	¼ fruit + seeds.	(test enl. 8x5.5 mm)

~~with~~ R257 average ~~+ the~~

CONTINUED OVER LEAF (PAGE 245).

ZOSTEROPS FLAVIFRONS (MAJUSCULA?) CONT.

Sk+Root No.	Sex	Shooting Data	Gon.	Total.	W.	Tail	Bill	Tr	Moult	Abr	Stomach.	Remarks.
		1935										
R.259.	♂	18/12/35 See data for R.258. furvous page same group. area 6. Anuwa Is.	0/0+	⊗	65	⊗	C 20 C 14.	21.	TL: ⊗. crown 0 chin 0	W: S TL: ⊗	Empty.	tail shot to hell. poss sub adult by gonads.
R.294.	SUB AD ♂	19/12/35. 12 PM fine sun. garden lands, area 6. Anuwa Is.	0/0+	130	63	47	G 19 C 12.5.	21.	NIL	W/T N.	—	soft gape.
SK149.	♀	26/12/35 7 AM fine sunny shot in coastal scrub, casuarinas N end of island area 6. Anuwa Is.	3/4.	140.	64	48.	G 21 C 14.	20.	W: R. 18, L 8, 9. covs seconds C. all uppers 0 all unders 0.	W/T N.	½ black beetles.
		1936										
R.335	U.S. ♂? JUV.	8/1/36. 9 AM fine sun. garden land 200 ASL. area 1. White Sands E Yanna.	JUV.	137	64.	46.	G 21 C 14	21.	W. R. 8 second A. covs C L: ditto. TL: covs 0. rump, lower back M. back 0 crown M. all unders C X flanks M	W/T N.	½ fruit seeds	could find no sure sex guide, believe ♂ Juv.
R.351.	♂ SUB ADULT	30/1/36. 2 PM wind + rain. hurricane centred in northern group (Santo). low bright. garden land. 200 ASL. area 1. White Sands East Yanna.	0/0	128	63	44	G 19 C 12.	20	W: covs 0 TL: covs 0 all uppers very M all unders very M.	W/T N.	0/0 —	shot to see if feeding during hurricane. Bright yellow unders like hill bird (? displaced). IRIS light brown pale outer ring BILL upper M brownish horn (lightish) under M dark mark towards tip. rest white horn. legs & feet pale greyish slate.
SP166. R353.	U.S. JUV.	31/1/36. 9 AM found in storm channel in garden lands, 200 ASL. Wind + rain hurricane abated. area 1. White Sands East Yanna.		135	61.	⊗	G 19.5. C. 13	20.5.	W: R 7, 8, L. 7-9. covs M seconds A. TL: all. all uppers M } decreasing from tail to head. all unders M }	W/T N.	—	soft parts as for R. 351. Put in spirit to show tail moult + also age of birds storm affected.
R 366	SUB? AD? ♀	18/2/36 9 AM fine sun. garden lands 120 ASL area 1. White Sands E Yanna.	1/2	135	63	46.	G 19.5 C 12.5.	20	W: R 6, 7, 10, 17. L 6, 7, 8, 10, 17 } seconds covs M. all uppers 0 X crown M. all unders M X crown chin 0	W/T VS.	½ fig seeds.	(shell of skull not ossified ?) S.P.O.K.

BREEDS. ~~PAR~~ 250

ZOSTEROPS LATERALIS ? (ERNSTI if new).

after Dr Stagr who arranged expedition.

SOUTHERN NEWHEBRIDES

NATIVE NAMES.

East Tanna area 1. Eastern foothill Esaha, areas 2+3 } KABUKEL

Eastern foothills Tanemilan area 3 } KOB-AY-HAR.

Anuwa Is. area 6. } KABUKEL.

1935.

SK+ROUT.No.	SEX	SHOOTING DATA.	GON.	TOTAL	W.	TAIL	BILL	TR.	MOULT	ABR.	STOMACH.	REMARKS.
SK20 R35	♂	1/10/35. 8AM. sun+showers. singing in tree 20ft. Semi bush 200ASL. White Sands (area 1) East Tanna.	1/1-	157	73.	58	G19 C13.	21.	W: seconds O crown O all unders O	W/T V.S.	1/4 fig seeds	larger than northern bird+has darker (black) cheeks. Shot because noticeably larger in field. Very common in area especially in garden lands+semi bush. Not so common in drier semi borders but present. Runs in a ratio of about 1 to 30 to 4 of Flavipons but this ratio varies a great deal at times+seasons according to fruit crops ect. Generally very common except in drier areas (on semi ash plain) where they become less numerous.
SK21 R36	♂	11/10/35. 9.30AM. sun+showers. Shot in banyan tree 30ft. Semi bush on deep steep gully side (branch of Pakumpti). 200ASL. area 1. White Sands. East Tanna.	3/4-	151	71	57	G19. C13.	22.	TL: R.1. upper back M. nape+crown O } few scattered. all unders O	W/T N.	3/4 banyan fruit.	very dark cheeks.
R55	♂	15/10/35. 8AM. fine sun. in fig tree 20ft. garden lands. 200ASL. area 1. Tanumaha. White Sands East Tanna.	1/1+	157	73	58	G19 C13.	22.	NIL	W/T S.	1/2 figs	badly shot damaged. dark cheeks.
SP104 R77	U.S.	23/10/35. fine sunny. 20ft up in tree. open grassland paddock. 9AM. (area 1) Tanki, White Sands. 120ASL East Tanna.		145.	72	57	G19 C13.	22	NIL	W/T S	1/2 insects fruit.	black cheeks. Smaller than usual. BILL upper M brownish tinge lower M. white horn except for darkish mark towards tip.
SK40 R79.	♀	23/10/35. 2PM. fine sunny. low tree 15ft garden land. 120ASL. (area 1) White Sands, E. Tanna.	1/1++ ~~OT~~	151	71	55	G19 C13.	21	NIL	W/T V.V.S.	1/4 fig seeds.	not so black on cheeks, bill pinkish white horn. (egg in oviduct. shell not hard + still white)
SK41 R.81.	♂	31/10/35. 9AM fine sunny. 30ft up in banyan tree. garden lands 200ASL. area 1. White Sands, E. Tanna.	1/1++ ~~OT~~	146	71	55	G.18 C.13.	21.	TL: R.1,2,6 cov O. nape O crown, cheeks M. yellow of neck chin M.	W/T S.	1/4 banyan fruit.	not quite so dark on cheeks as some. bill rather paler almost yellowish tinge. feet+legs, flesh with pronounced yellowish tinge. (testes L. 11×8·5mm)
SK44 R.86.	♂	1/11/35. 12.AM fine sun. shot in low tree 15ft. Garden lands 200ASL. (area 1) White Sands, East Tanna.	1/1+	147	74	65	G19 C13.	21·5	TL: cov M. upper back nape crown O all unders O.	W/T S.	1/2 fruit seeds.	good deal of black on cheeks+forehead.
R92.	♀	2/11/35. 3PM. fine sunny. low tree 10ft. open grass land paddock 120ASL. Tanapuas, area 1. White Sands, East Tanna.	3/4-	153	?71	57	G19 C13.	21.	W: ⊗	W/T V.S.	1/2 figs ?	lot of black on face. badly shot damaged (? wing+total measurements).
SP114 R95	♀	4/11/35. 11.AM fine sunny. low shrub 4ft. (blue flower in old garden). Garden land 200ASL. area 1. Tanimaha. White Sands E. Tanna.	3/4.	146.	70	55	G19 C13.	21.	W: ⊗ NIL	W/T C.	1/1 fruit seeds, green insect (aphis lion).	not very dark cheeks
R104	♀	5/11/35 3.PM fine sun. in low tree 15ft. garden lands. 200ASL. area 1. White Sands East Tanna.	3/4+ ~~OT~~	145	70	50	G19 C13.	22	NIL	W/T S.	1/1 fruit, (figs) insects.	badly shot damaged. not very dark on cheeks. pale beak. (diam largest ooyte 2·25mm).
SK49 R105	♂	5/11/35. 3.30PM. fine sun. In tree 10ft. garden land 200ASL. area 1. White Sands E. Tanna.	1/1- ~~OT~~	149	73	57	G19 C13.	22	TL: R.6. upper back O	W:S T:F.	1/1 fig seeds.	good deal of black on cheeks+head. (test enl. 8×6mm) (
R106	♀	7/11/35 8.AM. dull showery. in tree 30ft garden lands 200ASL area 1. White Sands E Tanna.	3/4-	151	70	53	G19 C13.	21.	NIL	W/T S.	0/0 residue.	shot damaged. good deal of black on cheeks+head.
R107.	♀	7/11/35. 11AM ditto above. area 1. East Tanna.	3/4+ ~~OT~~	152	72	53	G19 C13.	22	TL. L. 3-6.	W/T F.	1/2 fig seeds.	good deal of black on cheeks not much on crown. (diam largest ooyte 2mm).
R108.	♂	7/11/35. 11.AM. near R.107. area 1. East Tanna.	U.T. O.T. 1/1- ~~OT~~	157	73	54	G19 C13.	21.	NIL	W/T N.	1/2 banyan berries.	badly shot damaged. lot of black on cheeks+head. more yellowish green on rump than usual+brighter yellow under chin. (test uneven. + R test opaque + enl. 6×6mm. L test. enl 9×6mm)
SK52 R115	♀	8/11/35. 12-3PM. ~~dull~~ cloudy+sunny day. Garden lands 200-250ASL. area 1. White Sands E. Tanna.	1/1++ ~~OT~~	149.	70	53.	G19 C13.	21.	W: seconds, covs O. TL: covs O upper back M nape O crown M all unders O × chin	W/T C.	3/4 red banyan figs.	lot of black on cheeks+head. buffy unders. (diam largest ooyte 8·5mm).

CONTINUED. ON P251.

SOFT PARTS.

TANNA (areas 1-5) { IRIS hazel with dark inner ring. BILL upper M basehorn, tip ½ increasing darker to black at tip (a brownish). lower M white horn, occasional shaded at tips. LEGS+FEET pale flesh colour, yellowish tinge.

ANIWA IS area 6. { IRIS ditto Tanna. BILL upper M tinged darker than Tanna. LEGS+FEET pale flesh to pale bluish grey.

~~PAR~~ 171

ZOSTEROPS LATERALIS ERNSTI (CONT).

1935

Sk+Rout No.	Sex	Shooting Data.	Gon.	Total.	W	Tail	Bill	Tr.	Moult	Abr.	Stomach	Remarks.
SK53 R116	♀	8/11/35. 12-3 PM. sun + cloud. garden land 200-250 ASL. area 1. White Sands. E. Janna.	O.E. 3/4. ↓O→	150	71.	55	G19. C13.	22.	back 0	W/T C.	0/0 empty.	lots of black cheeks + head, not quite as buffy unders as R115 but has brighter rump. (oviduct enlarged. belive it is a sitting bird)
SK54 R117	♂		1/1-	149	74	58	G19 C12.	21.	chin 0.	W/T N.	1/2 figs.	not much black cheeks + head. very yellow chin, white streak between buffy unders, brighter rump than 115. (test enl 8x6mm).
SP118 R122.	♂ ♂ ♂ ♀	11/11/35. 3 nes ~~dings~~ found in nest in low tree 20 ft. in cane grass pandanus area, 250 ASL. Devil borders, area 1. White Sands. E. Janna	0/0 0/0 O.T. 0/0 ↓O→ 0/0									2 of parts gapes. whitish yellow. BILLS bluish pale horn ~~instead of black~~ for usual. (both testes pale black.)
R146.	♂ ♂ ♂	15/11/35. 3 juv. in nest. Garden lands. 250 ASL. area 1. White Sands. E. Janna.	0/0 0/0 0/0									gapes yellowish, bills yellowish, tips brownish horn. legs flesh.
SK72. R158	♀	19/11/35. 9.30 AM. dull cloudy. In soft tree in river bed. Esaka valley 600 ASL. Deep steep valley precipitous slopes covered in dense low scrub, under bush ferns Pot. Area 3. Eastern foothills, Janna.	O.V.E. 1/1+ ↓O→	151.	70	54	G19 C.13.	22	TL: L.2.	W/T V.S.	1/1 fruit, berries.	Very common in area, though not quite as numerous as in White Sands area. Appears identical with the white sands birds, though this one has slightly less black on head than most from that area. This vally has a river in the bottom with steep almost precipitous slopes rising on either side + running up to 2000 ft ASL. These slopes are dinsly covered with low trees 20 ft or so + wild cane, tree ferns ect. with a dense undergrowth of ferns, stag ferns, wild hava + small scrubs. This valley lies between + behind Esaka + Janemilan. Called Esaka valley by me for convenience. Has (oviduct very enlarged.) no cultivation or population being too rugged. Many birds killed it in this valley alone.
SK90 R 200	♂	28/11/35. 8 AM. dull cloudy. low tree near camp. ~~dense~~ ferns under brush ect. under low trees average 20-25 ft. very rugged country. Labei plateau 2300 ASL. area 4. South. Bent. Mts. Janna.	V.T. 3/4+ ↓O→	145	74	56.	G19 C.13.	22.	NIL	W.F. T.S.	1/4 fruit seeds.	Common in area but not as numerous at either white sands, or Eastern foothills area, but quite common. This country is very rugged + deeply cut with valleys densely clothed with tree shrubs ferns, wild hava ect. Quite a different type of country to lower levels, being very moist + cool. A great deal of the time in cloud mist. This specimen is quite similar to white sands area. perhaps more buffy (drab) unders + brighter back than usual there. (Uneven testes R test enl 9x7. L test enl 5x3 mm).
SK94 R201.	♀	28/11/35. 8 AM. dull cloudy. in ~~low dense undergrowth~~, Shot in low tree in similiar locality to R200 but 2600 ASL: Labei plateau. area 4. South Bent. Mts. Janna	1/4+	144	73	53	G 20 C 13.	22.	NIL	W.S T.V.S.	1/1 fruit + berries.	similiar to white sands area with similiar slight differences as R 200.
SP147 R251.	U.S.	17/12/35. 2 PM. fine sunny. garden lands 35 ASL. W side of island. area 6. Anuwa Is.	~~1/1+~~	Direct to spirit for museum examination ~~144~~	~~73~~	~~53~~	~~G20~~ ~~C13~~	~~22~~	~~NIL~~	~~W.S~~ ~~T.V.S~~		Iris light brown, hazel. BILL upper M tip dark horn base pale white horn. lower M pale white horn. gape soft yellowish white legs + feet pale bluish flesh. Prob. sub. adult.
SK121 R263	♀	18/12/35. 6-9 AM. odd spin Ables sun + cloud. semi bush. garden lands. dry hardwood scrub. 0-120 ASL. General island sample. area 6. Anuwa Is.	1/2+	151.	71	57	G18·5 C.12.	22.	W: R.8, 9, L.9. TL: covs A. all uppers 0 all unders 0 (few scattered)	W/T S.	3/4 fruit berries.	very common through the whole island in all types of country even quite numerous in mangroves in Eparo tidal lagoon. Not as common as flamboyants runs in a ratio of about 1 to 3 or 4 of that species, though like White Sands area they move about a good deal. Saturalis runs more in flocks of half a dozen to a dozen + flav. often hunt in ones ~~two~~ + threes, but congregate at a call for food or a pulgfoker or owlet. Maybe very small differences to Janna but ranges of variation overlap very considerably. This specimen has LEGS pale flesh.
~~SK~~ R.264	♂ SUB. ADULT.	18/12/35. ditto above. area 6. Anuwa Is	0/0.	145.	67.	51.	G.19 C 13.	21.	W: seconds covs 0. back M crown C neck chin 0.	W/T V.V.S.	1/4 fruit.	gape softish. LEGS darker than R.263. pale bluish grey broken during skinning.
R265.	♂	18/12/35. ditto above. area 6. Anuwa Is.	1/2.	149.	71	55	G.19 C12.	21.	TL: R.3, L.4, 5. covs 0. crown 0 breast 0.	W/T S.	1/2 mango pulp.	LEGS pale flesh similar to R263
SK127 R284.	♂ SUB. ADULT.	19/2/35. 11 AM-2 PM. fine sun. Garden lands at 40 ASL. W side of island. area 6. General sample. Anuwa Is.	O.T. 0/0+ ↓O→	144	70	52.	G.19 C12·5.	20·5	TL: L.3.	W/T N.	1/2 insects.	gape softish. (R. test black). 25/12/35. skin stolen by rats
SK128 R.285	♀	19/2/35. 11 AM-2 PM. Dry H.W. scrub ditto above. 120 ASL. area 6. Anuwa island	⊗? 1/2.	156	69	54	G19 C12.	21.	NIL	W/T N.	1/1 fruit seeds.	gape softish head badly damaged. ? total length.
R286.	SUB. AD. ♀	19/2/35. 11 AM-2 PM. ditto above. General island sample. 80 ASL. garden lands. area 6. Anuwa Is.	0/0	140	66	53	G.18·5 C.12.	20.	W: under upp. covs 0. back M nape 0 crown C. flanks nape C chin 0.	W/T N.	1/2 fruit berries.	gape soft yellowish.
SK150 R327.	♂	26/12/35. 9 AM. fine sun. open grass lands, low hardwood scrub on plateau north end of island 100 ASL. area 6. Anuwa Is.	0/0+	145	69	53	G20 C12·5.	22.	NIL.	W/T V.S.	1/4 hard 3 cornered seeds poss. of hardwood scrub.	to replace SK127 stolen by rats. no field note of softish gape but I think it is sub adult by gonads.

CONTINUED ON PAGE 252.

ZOSTEROPS LATERALIS ERNSTI (CONT).

SK+Rout No.	Sex	Shooting Data.	Gon.	Total	W.	Tail	Bill	Tr.	Moult	Abr.	Stomach	Remarks.
		1935										
SK151 R328	♂	26/12/35 9.AM. fine sunny, open grass, scattered, low hardwood scrub on plateau N end of island. 100 ASL. area b. Amwa Is.	0/0+	149	68.	52.	C.19. C.13.	21.5.	W: L.10. TL: covs. M. back crown M. neck O	W/T V.S.	3/4 fruit, insects ants.	Shot within half a minute of R.327. one of flock of about half a doyen. Probably sub adult though no record in field book of soft gape.
		1936										
R334.	♀	8/1/36. fine sunny, garden lands 200 ASL. area 1. White Sands, E. Tanna.	O.M.F. 3/4 ~~0+~~	153	73	58	C.20 C.14.	21.	W: R.6, 7: L.6, 7. sec. covs. M. TL: R.1, L.1, under covs M. upper back crown M. breast, neck, chin O.	W/T F.	3/4 red fig seeds	(oviduct M. enlarged).
SP161 R341.	U.S.	22/1/36. 4.PM fine sunny. nestling fully fledged. White Sands, (area 1) East Tanna.			Direct to spirit							soft parts. Iris hazel, BILL pale horn, darkish tinge upper M. gape yellow. legs + feet dark flesh blackish tinge.
R.361.	SUB AD ♀.	6/2/36/11.AM fine sun. garden lands 200 ASL. area 1. White Sands. East Tanna.	0/0.	148	71	55.	C.20 C.12	20.5.	W: covs. O. TL: covs O all uppers O (few) x upper back O. vent belly flank O	W/T N.	3/4 red fig seeds fruit ?	

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